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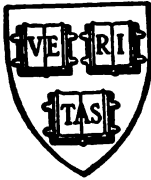
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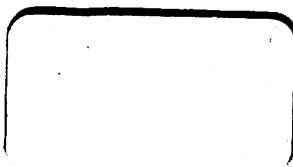
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A
PICTORIAL
GEOGRAPHY
of the
WORLD

by
S. G. GOODRICH.
VOL. I.....OLD WORLD.

BOSTON:
Published by E. D. Strong.

PICTORIAL GEOGRAPHY,
OF
THE WORLD,

COMPRISING

A SYSTEM OF UNIVERSAL GEOGRAPHY,
POPULAR AND SCIENTIFIC,

INCLUDING A PHYSICAL, POLITICAL, AND STATISTICAL ACCOUNT OF THE EARTH AND ITS VARIOUS
DIVISIONS, WITH NUMEROUS SKETCHES FROM RECENT TRAVELS:

AND ILLUSTRATED BY

MORE THAN TWELVE HUNDRED ENGRAVINGS,

OF MANNERS, COSTUMES, CURIOSITIES, CITIES, EDIFICES, RUINS, BEASTS, BIRDS, FISHES,
REPTILES, TREES, PLANTS, FRUITS, ETC.,

WITH A COPIOUS INDEX,

ANSWERING THE PURPOSE OF

A GAZETTEER.

Samuel Goodrich
By S. G. GOODRICH

A NEW EDITION:

IN WHICH THE ORIGINAL WORK IS RE-ARRANGED, REVISED AND ENLARGED,
WITH THE ADDITION OF

A Supplement,

PREPARED FOR THE PRESENT PUBLISHER.

By T. J. S. Strong.
VOL. I,

THE OLD WORLD.

BOSTON.

PUBLISHED BY CHARLES D. STRONG.
1856.

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THE very large sale of about *twenty thousand copies* of Goodrich's PICTORIAL GEOGRAPHY OF THE WORLD in those limited parts of the country (confined almost exclusively to New England), in which hitherto it has been extensively brought to the public notice, afford abundant proofs of its merits, and its adaptation to the purposes which its sagacious and accomplished editor had in view.

The lapse, however, of fifteen years since its first publication could not, in this progressive and stirring age, but leave the work as originally produced, somewhat behind the present times, particularly in respect to population, commerce, and public works, which, in certain parts of the world, advance at present with such rapid strides.

To remedy this defect, and to adapt this valuable work to the political and social changes which have taken place since its first publication, the original text has undergone a very careful revision. With a view to the arrangement of the work in two separate and independent volumes, — one devoted to the Old World, the other to the New, (including America and Oceanica), — the Chapters have been arranged in a new order. Some, which had become antiquated, have been omitted altogether, and their places supplied by new ones; and in almost every page of those which have been retained, important, and often extensive, corrections have been introduced.

But the improvements which could thus be made did not seem sufficient entirely to accomplish the object which the present publisher had in view; and to complete his design he has added to each volume a SUPPLEMENT (separately paged), chiefly devoted to those topics upon which the reader might desire information more extensive and complete than is given in the original work. The Supplementary Introduction appended to the first volume will be found to contain, besides some original views on the subject of climate, many valuable and interesting scientific details derived from the most recent publications. The supplementary view of the Old World, also appended to the first volume, is mainly devoted to the great leading States of Europe, — the British, French, Austrian, and Russian empires, and the German Confederation; particularly to the British Empire, as being that country of the Old World as to which, for a great variety of reasons, the American reader would desire the fullest knowledge.

The Supplement to the second volume, — that relating to the New World, — is largely devoted to the British North American Provinces, which are but very slightly treated in the original work, but whose rapid progress in population and wealth, and whose intimate commercial and social connections with the United States, make them

objects of daily increasing interest. A more full and complete account of these provinces is here given than can be found in any other work. The articles devoted to the United States embody all the most material information embraced in the published reports of the late Census, as well as full descriptions of those States and Territories organized, acquired or explored since the publication of the original work. There is also added a pretty full account of the growing British Australian colonies, to which the recent gold discoveries have attracted so general attention.

On the whole, the publisher cannot but hope, that the entire work, taken together, in the shape in which it is now presented will afford, not less by its profuse illustrations than by its printed text, a full view of the World, precisely suited to meet the wants of that great mass of readers who desire to find in a single work a complete geographical encyclopedia — not too dry to be studied with pleasure, and adapted to entertain as well as to instruct; — while, at the same time, it should constitute a reliable work of reference upon those valuable and indispensable subjects of knowledge arising from a view of the world in which they live, and of the beings who inhabit it.

The author of the original work is well known; it is proper to state distinctly to the public that the re-arrangement, revision and supplement of the work in its present form, have been prepared by another but it is believed equally competent hand.

C. D. STRONG.

CONTENTS OF VOLUME FIRST.

HISTORY OF GEOGRAPHICAL DISCOVERY	9
GEOGRAPHICAL DEFINITIONS	13

INTRODUCTION

17

	Page.		Page.
Astronomical Principles	17	Geographical Distribution of Plants	42
The Earth, its Figure, Dimensions, &c.	21	Geographical Distribution of Animals	43
Land and Water.	22	Man	47
Surface of the Land	25	Political Institutions	48
Lakes and Rivers	28	Religion	50
Climate and Winds	32	Use of Globes	53
Structure of the Earth. Minerals	36		

GENERAL VIEW OF THE GLOBE	56
---------------------------	----

EUROPE.

58

General View of Europe	58	Principality of Monaco	238
The United Kingdom of Great Britain and Ireland	81	Tuscany	238
England	87	States of the Church or Papal Dominions	240
Scotland	131	Republic of San Marino	244
Ireland	148	The Kingdom of Naples, or Kingdom of the Two Sicilies	244
France	158	The Ionian Islands, Malta and Gozzo	249
Republic of Andorra	187	Greece	251
Spain	187	European Turkey	267
Portugal	206	Switzerland	282
General View of Italy	210	General View of the Empire of Austria	290
Kingdom of Sardinia	230	The Hungarian States	293
Austrian Italy, or the Lombardo-Venetian Kingdom	233	German and Polish Provinces of Austria	299
The Duchies of Parma, Modena, and Lucca	237	Prussia	307
		General View of Germany	310
		Grand Duchy of Baden	318

	Page.		Page.
Kingdom of Wirtemberg	319	The Hohenzollern Principalities	327
Kingdom of Bavaria	320	Lordship of Knipphausen	328
Kingdom of Saxony	321	The Free Cities	328
Kingdom of Hanover	323	The Kingdom of Holland, or the Nether-	
Grand Duchies of Mecklenberg	324	lands	329
Grand Duchy of Oldenburg	324	Belgium	337
Saxon Duchies	324	Denmark	342
Duchy of Brunswick	325	Iceland	345
Hessian States	325	Norway	349
Duchy of Nassau	326	Sweden	353
Principality of Waldeck	326	Lapland	358
The Anhalt Duchies	326	Finland	361
Schwartzburg Principalities	327	Late Republic of Cracow	363
The Reuss Principalities	327	Poland	364
The Lippe Principalities	327	Russian Empire	367
The Principality of Liechtenstein	327		

ASIA.

379

General View of Asia	379	Kingdom of Herat	436
Asiatic Russia	393	Beloochistan	436
Turkistan, or Independent Tartary	398	India, or Hindoostan	437
Ottoman Asia, or Turkey in Asia	401	Thibet	451
Syria	412	Farther India, or India beyond the Ganges	453
Arabia	424	Chinese Tartary	458
Persia, or Iran	428	China	460
Cabulistan, or Afghanistan	434	Empire of Japan	472

AFRICA.

473

General View of Africa	473	Eastern Africa	519
Maghreb, or Barbary	480	Abyssinia	520
Sahara, or Great Desert	494	Nubia	522
Nigritia, Sudan or Land of the Blacks	496	Egypt	524
Western Africa	507	African Islands	535
Southern Africa	513		

CONTENTS

OF

PART FIRST.

INTRODUCTION.

	Page.		Page.
RECENT ASTRONOMICAL DISCOVERIES ,.....	7	Springs, Artesian Wells, Glaciers, Avalanches,	
Planets,.....	7	Rivers,.....	28
Comets,.....	10	CLIMATES, WINDS, AND RAINS ,.....	30
Fixed Stars,.....	11	Characteristics of Climate,.....	30
Nebulae,.....	17	Zones of Climate,.....	31
Astronomical Causes of the Seasons, and of		Winds and Rains,.....	34
Variations in the Length of the Apparent		GEOLOGICAL STRUCTURE OF THE EARTH ,..	38
Day ,.....	18	CLASSIFICATION OF PLANTS AND ANIMALS ,.	51
Figure of the Earth; Maps and Charts; Latitude and Longitude ,.....	21	MAN ,.....	54
Continents, Islands; Tides, Saltness, Color, and Phosphorescence of the Sea ,.....	23	Varieties of the human race,.....	54
Surface of the Land; Moral Effects of its Configuration ,.....	26	Languages,.....	56
		Religions,.....	59
		Government and Progress,.....	60

THE OLD WORLD.

	Page.		Page.
WHAT WE CALL THE OLD WORLD ,.....	62	Poor Laws,.....	96
GENERAL VIEW OF EUROPE ,.....	63	Highways, Manufactures, and Ex-	
Extent, Population, Seas,.....	63	ports,.....	97
Climate,.....	64	Shipping,.....	98
Surface, Mountain Ranges,....	65	Tariff,.....	99
Barren Tracts,.....	67	Roads, Railways, and Canals,....	114
Lakes, Rivers,.....	68	Telegraphs,.....	115
Geology,.....	71	Population,.....	116
Minerals, Vegetable Products,....	72	ENGLAND AND WALES ,.....	117
Wild Animals,.....	74	Extent, Surface, and Soil,.....	117
Domesticated Animals,.....	75	Scenery, and Coasts,.....	119
Birds, Reptiles, Fish, Insects,....	76	Geology — Coal, Minerals,.....	122
Political Divisions,.....	78	Climate, and Vegetable Products,.	123
Origin of the existing Nations and		Animals, Agriculture, and Antiquity,	124
States of Europe.....	78	Churches,.....	125
Civilization, Newspapers,.....	83	Castles and Mansions,.....	126
Productive Industry, Shipping,....	83	Inhabitants, Language, etc.,....	127
Five Great Powers,.....	84	Population, Cities,.....	127
BRITISH EMPIRE ,.....	84	SCOTLAND ,.....	137
Origin and Policy.....	84	Surface, and Scenery,.....	137
Government and Politics,.....	85	Mountains,.....	138
Judiciary,.....	86	Islands, Rivers, Lakes, Geology,..	139
Debt, Revenue, and Expenditures,	87	Minerals, Soil, Climate, Agriculture,	140
Army and Navy,.....	89	Inhabitants, Population,.....	141
Religion,.....	90	IRELAND ,.....	142
Public Education,.....	94	Situation and Extent,..	142

	Page.		Page.
Surface, Coasts, and Rivers,.....	142	Revenue and Debt, Army, Inhabitants,.....	189
Lakes, and Geology,.....	143	Religion, Education,.....	190
Soils, Productions, Climate, and Agriculture,.....	144	Government,.....	191
Population, Exports and Imports,....	145	MINOR STATES OF EUROPE,...	191
EUROPEAN DEPENDENCIES OF THE BRITISH EMPIRE,.....	145	Scandinavian Peninsula—Norway and Sweden.....	191
Heligoland,.....	145	Denmark, Holland,.....	192
Gibraltar, Malta, Ionian Islands,....	146	Belgium,.....	194
FRANCE,.....	147	Spanish Peninsula (including Portugal),	196
Surface, and Geology,.....	147	Switzerland,.....	198
Minerals, Climate, Scenery, and Soils,	148	Italy,.....	199
Agriculture, etc.,.....	149	Greece,.....	201
Manufactures,.....	150	ASIA,.....	203
Fisheries, and Commerce,.....	151	General View of Asia,.....	203
Railroads,.....	152	OTTOMAN EMPIRE,.....	205
Population, and Religion,.....	153	History,.....	205
Education, Army, and Navy,.....	154	Antiquities—Nineveh,.....	207
Legion of Honor, Government,....	155	SYRIA,.....	211
EMPIRE OF RUSSIA,.....	156	Climate, Population, Inhabitants,....	211
Extent, Surface, and Geology,.....	156	Greek Catholics,.....	212
Climate, Soil, etc.,.....	157	Maronites, Jacobites,.....	213
Agriculture, etc.,.....	158	Syrian Catholics,.....	214
Manufactures, Fishery,.....	159	Armenians, Catholics, and Protestants,	214
Commerce, and Internal Communication,....	160	Mohammedans and other sects,....	214
Inhabitants, and Population,.....	160	Nusairiyeh, Ishmaelites, Convents,...	215
Classes, Serfs,.....	161	Travelling; Cities and Towns,....	216
Education, Press, and Religion,....	162	PERSIA,.....	220
Government, Revenue, and Debt,...	163	Present state of Persia,.....	220
Army and Navy,.....	163	The Nestorians,.....	221
GERMAN CONFEDERATION,.....	165	INDIA,.....	226
History,.....	165	Rise, Progress, and Present Condition of the British Empire in India,...	226
Customs Union,.....	172	BURMAN EMPIRE,.....	229
Railroads, Surface,.....	173	General Description and Incidents,...	239
Rivers, Geology,.....	174	Boodhism,.....	248
Climate, Soil, Vegetable Products,...	175	CHINA,.....	251
Domestic Animals, Origin, Language,.	176	War with Great Britain,.....	251
Religion, Agriculture,.....	177	Tea,.....	252
Manufactures, etc., Books,.....	178	JAPAN,.....	255
Commerce, Education,.....	178	Dr. Liebold's admission and residence at Nangasaki,.....	255
Tabular view of the German States,...	180	Opening of Commerce,.....	258
EMPIRE OF AUSTRIA,.....	181	AFRICA,.....	258
Extent, etc., Civil Divisions,.....	181	Algeria, Liberia, South Africa,....	258
Surface, Rivers, Climate, Soil and Product,.....	182	EGYPT,.....	259
Minerals, Manufactures, Commerce, Finance,.....	183	History,.....	259
Army, Navy, Inhabitants, Religion,...	184	The Sovereign,.....	260
Education, History, and Government,	185	Revenue, Trade, Commerce, Travelling,.....	261
KINGDOM OF PRUSSIA,.....	186	Architecture, Antiquities,.....	263
Extent, Surface, and Soil,.....	186	Literature and Science,.....	267
Rivers, Lakes, and Canals,.....	187	Army, Navy, Population, and Inhabitants,.....	268
Climate, Agriculture, Minerals,....	187		
Manufactures, Commerce, Roads,...	188		

HISTORY OF GEOGRAPHICAL DISCOVERY.

THE science of Geography is, in its nature, confined nearly within the limits of actual discovery. It has, of course, kept pace with the progress of mankind in surveying the surface of the globe, and recording their observations. The following sketch of geographical discovery is compiled from Murray's *Cyclopedia of Geography*.

No system of geography can be traced in the sacred writers, and the ancient Hebrews never attempted to form any scientific theory respecting the structure of the earth. The Phœnicians and Carthaginians made themselves acquainted not only with the shores of the Mediterranean, but with the coasts of Europe; and as early as the time of Solomon they sent their ships to the British Islands, which then bore the name of Tin Isles, from the tin obtained there.

The first traces of Greek geography are found among its poets, whose brilliant fancy has spread its lustre over all the regions with which Greece ever held intercourse. Homer took the lead, and his high authority gave to the geography of the Greeks a poetical cast, which they transmitted to the nations whom they taught, and of which the traces are not entirely obliterated.

It is in Homer, that we find the first trace of the widely-prevalent idea, that the earth is a flat circle, begirt on every side by the ocean. This was indeed a natural idea in a region so entirely insular and peninsular, nowhere presenting, like Judea, a vast tract, stretching so far as to give the idea of immeasurable distance. The circular shape was suggested by that of the visible horizon; and, until science demonstrated the globular form of our planet, the very natural opinion prevailed, that the earth was a flat circle, with the vault of heaven above, darkness, and the abode of departed souls, beneath.

Homer, like Hesiod and the ancient poets generally, delights in topographical detail, and scarcely allows a city or natural object to pass without applying to it some characteristic epithet. It was only, however, within a very limited range, that he could give these distinct and animated notices. The Greek islands, beautiful and fertile spots, which seem to have been the first cradle of European civilization, were the central point from which his knowledge emanated. He knew well, and had probably visited, on one side, Peloponnesus, Attica, and the regions immediately adjoining; on the other, the western coast of Asia Minor, and the banks of the beautiful rivers by which it is watered. Perhaps scarcely any other tract on the globe presents within the same compass such a variety of grand and beautiful objects to rouse the imagination. Beyond this circuit, the world of Homer was soon involved in mysterious obscurity. Some grand and distant features, discernible through the gloom, were exaggerated and distorted by ignorance and superstition. Thebes, the mighty capital of Egypt, when that kingdom was in its greatest glory, is celebrated for its hundred gates, and the hosts of warriors which they sent forth to battle. Beyond lay the Ethiopians, deemed the remotest of men, dwelling on the furthest verge of the earth, and to whose distant confines Jupiter repaired to hold an annual festival. In the western part of the same continent the stupendous ridges of Atlas, had excited in Grecian fancy the image of a gigantic deified being, to whom was intrusted the support of the heavens. Even further to the west, the exploits and wanderings of the great Grecian demigod had conveyed a tradition of the strait leading into the ocean, and of the rocks on each

side, celebrated under the denomination of the Pillars of Hercules.

On the east, Colchus was distinguished by its early wealth and commerce; it was considered a city on the ocean, with which, therefore, the Black Sea must have been confounded; and being supposed to contain the palace of the Sun, where, during the night, he gave rest to his coursers, and whence in the morning he drove his chariot to its diurnal career, Colchus must have been regarded by Homer as placed on the most eastern verge of the earth. On the north, Rhodope, under the name of the Rhipæan Mountains, was considered a chain of indefinite extent, closing in the northern limits of the world. The poet, however, had heard a vague report of the Scythians, under the description of a people subsisting on mare's milk. The vessels which conveyed the Grecian army to Troy were evidently little better than large boats; and all distant voyages, or those in which land was lost sight of, were considered as fraught with the extremest peril. A navigation to Africa or to Sicily took place only through tempest, terminating usually in shipwreck; and a return from these shores was esteemed almost miraculous. In regard to Sicily, indeed, Homer has largely communicated his ideas, having made it the theatre of the woes and wanderings of the hero of the *Odyssey*. Making every allowance for poetical license, we see evident traces of the terrified and excited state of mind in the navigators who returned from these shores. Monsters of strange form and magnitude, who watched for the destruction of the mariner, and even fed upon his quivering limbs; delusive sirens, who lured but to destroy; imprisonment under the transformed shape of wild beasts; these, probably, are only a highly-colored repetition of the terrific rumors brought by the few, whose bark had been wafted to those yet savage coasts.

The system of geography included in the great historical work of Herodotus is as complete as could be formed from the materials within his reach. It comprises a general summary of all that he could learn respecting the human race, and the regions which they inhabited. His information was obtained not solely or chiefly from books but mostly by traveling, the only mode in which, at that era, geographical knowledge could be effectually collected. He assures us, that he had visited Persia, Assyria, Egypt, Thrace, Scythia, and all the distant regions which he describes. He viewed them, however, only as tracts of territory, the abode of men, and did not attempt to combine them into any system of the earth; nor did he possess, or, at least, apply any of the mathematical or astronomical principles of the Milesian school. He even derides some of its conclusions; as that of the earth being round and encompassed by the ocean. His strange statement, that the sun in India was vertical in the morning instead of at midday, is evidently a misunderstood report of what he had been informed respecting the difference of time in the different parts of the earth's circumference. His knowledge, however, such as it was, consisting of plain facts, untinctured with theory, was both solid and extensive.

The division of the earth into three quarters, or continents, was by this time completely formed.

We cannot minutely trace the progress of geographical science, through its slow gradations, down to the Middle Ages. The conquests of Alexander extended the knowledge of the Greeks, and those of the Romans enlarged the

field, till the largest portion of the three divisions of the Eastern Continent was generally known. Ptolemy, the most learned of the Roman writers, gives us a great variety of accurate details, amid a multitude of errors. Ptolemy, the last and greatest of ancient geographers, attempted a complete reform of the science, and showed an immense advance in knowledge, over his predecessors.

In the Middle Ages the Arabs were the most learned of nations. Geography, among them, was studied with great ardor, and employed the pens of some of their ablest writers. Astronomy was among the favorite pursuits of the Court of Bagdad, under the Caliphs, and the knowledge then acquired was applied with some care and success to the improvement of geography.

In the Dark Ages there was little progress in geographical science. As yet the boundaries of even the Eastern Continent had not been defined; large portions of the interior had not been explored; vast seas and rivers were but partially known; the shape of the earth had not been ascertained; the continent of America and the Oceanic islands, were as yet undiscovered. But a new era was approaching. The Republics of Italy, and especially that of Venice, are the states in which a spirit of commerce and inquiry had arisen, and rapid advances were made in geographical knowledge. About this time Marco Polo, a noble Venetian, spent twenty-five years in traversing the remote parts of Asia. His narrative was soon translated into various languages, and spread over Europe. The discovery of America, by Columbus, soon followed. The progress of discovery over the globe, when the first steps had been taken, was astonishingly rapid; no cost, no peril, deterred even private adventurers from equipping fleets, crossing the oceans, and facing the rage of savage nations in the remotest extremities of the earth. Before Columbus had seen the American continent, and the mouth of the Orinoco, Cabot, of Venetian descent, but sailing under English auspices, discovered Newfoundland, and coasted along the present territory of the United States, probably as far as Virginia. In the next two or three years, the Corteals, a daring family of Portuguese navigators, began the long and vain search of a passage round the north of America; they sailed along the coast of Labrador, and entered the spacious inlet of Hudson's Bay, which they seem to have mistaken for the sea between Africa and America; but two of them unhappily perished. In 1501, Cabral, destined for India, struck unexpectedly on the coast of Brazil, which he claimed for Portugal. Amerigo Vespucci had sailed along a great part of Terra Firma and Guiana, and he now made two extensive voyages along the coast of Brazil; services which obtained for him the high honor of giving his name to the whole continent. Grijalva and Ojeda went round a great part of the circuit of the coasts of the Gulf of Mexico. In 1513, Nunez Balboa, crossing the narrow isthmus of Panama, beheld the boundless expanse of the Pacific Ocean. These discoveries afforded the impulse which prompted Cortez and Pizarro to engage in their adventurous and sanguinary career; in which, with a handful of daring followers, they subverted the extensive and populous empires of Mexico and Peru. Expeditions were soon pushed forward on one side to Chili, and on the other to California, and the regions to the north. Nearly a full view was thus obtained, both of the great interior breadth of America, and of that amazing range of coast which it presents to the southern ocean.

In the Eastern world, the domain which the papal grant had assigned to Portugal, discovery was alike rapid. Twenty years had not elapsed from the landing of Vasco da Gama, when Albuquerque, Almeida, Castro, Sequeira, Perez, and many others, as navigators or as conquerors, had explored all the coasts of Hindostan, those of Eastern Africa, of Arabia, of Persia; had penetrated to Malacca and the Spice Islands; learned the existence of Siam and Pegu; and even attempted to enter the ports of China. But the characteristic jealousy of that power was soon awakened; the Portuguese embassy was not admitted into the presence of the emperor; and a mandate was issued, that none of the men with long beards and large eyes should enter the havens of the celestial empire. After all these discoveries, the grand achievement yet remained, of connecting together the ranges of eastern and western

discovery; and of laying open to the wondering eyes of mankind, that structure of the globe, which, though demonstrated by the astronomer, seemed to the generality of mankind contrary to the testimony of their senses.

Magellan, in 1520, undertook, by circumnavigating the earth, to solve this mighty problem; he passed through the straits which bear his name, and crossed the entire breadth of the Pacific. He himself was unhappily killed at the Philippine Islands, but his companions sailed on, and presented themselves to the astonished eyes of the Portuguese at the Moluccas. They arrived in Europe, after a voyage of three years; and it could no longer be doubted, by the most skeptical, that the earth was a spherical body.

We have seen how rapidly the Portuguese fleets explored all the southern coasts and islands. The eastern shores beyond Japan, as they presented nothing tempting to commercial avidity, were left to be examined by expeditions having science and curiosity for their object. This task was effected by Cook, Perouse, Broughton, and Krusenstern. Jesso, which had figured as a large continental tract, stretching between Asia and America, was reduced by them to its insular form and dimensions, and its separation from Saghalien established. The range of the Kurile islands was also traced; but some questions respecting this very remote and irregular coast remain yet to be solved. Along its northern boundary, beset by the almost perpetual ices of the polar sea, the progress of navigation was slow and laborious. The English and Dutch, the chief maritime states, made extraordinary efforts, and braved fearful disasters, in the hopeless attempt to effect, by this route, a nearer passage to India; but though they penetrated beyond Nova Zembla, they never could pass the formidable promontory of Severostochnoi, the most northern point of the Asiatic continent. The Russians now claimed for themselves the task of advancing further. They had most rapidly discovered, and conquered the whole south and centre of Siberia, and reached the eastern ocean at Ochotzk; but the frozen bounds of the north for some time defied their investigation. Proceeding in little barks, however, they worked their way from promontory to promontory. Behring and Tchirikoff, early in the last century, sailed through the Northern Pacific, discovered the American coast, and the straits, bearing the name of the former, which divide Asia from America. Deschnew and Shaluroff, by rounding the Asiatic side of this Cape, and discovering the coast stretching away to the westward, were supposed to have established the fact of the entire separation of the two continents. There still remained a portion of coast on the side of Asia, which, it was alleged, might, by an immense circuit, have connected the two together; but the late voyage of Baron Wrangle seems to have removed every ground on which such conjecture could rest, and to have established beyond doubt or dispute, the existence of Asia and America as continents altogether distinct.

Respecting the interior of Asia, the British obtained much additional information from India, after they became undisputed masters of that region. This information was in many respects only a revival of ancient knowledge. The mountain boundary of India was traced, and found to rise to a height before unsuspected. The sources and early courses of the Ganges and the Indus, were found in quarters quite different from those which modern geography had long assigned to them. The mountain territories of Cabul and Candahar, the vast sandy plains of Mekran, were illustrated by the missions of Elphinstone and Pottinger; while Turner and Moorcroft penetrated into the high interior table-land of Thibet. Recent and authentic information has also been furnished by Burnes respecting Bocharia and Samarcand, those celebrated capitals of the early masters of Asia; but there remains still a great central Terra Incognita, respecting which our information rests chiefly upon the desultory and somewhat clouded reports of Marco Polo, and the meagre narrative of Goetz; though some important and more precise information has recently been afforded by the researches of Humboldt and Klapproth.

We can hardly trace the more modern advances in geographical knowledge, except so far as relates to Amer

sea and the islands of the Pacific. It may be proper to state, however, that within a few years, a vast amount of accurate information has been gained, in regard to countries in Africa, before unknown, or but partially explored. Many doubts have been solved which have puzzled the learned world for ages. In regard to Europe, almost every portion has now been examined, and its descriptive geography may be considered as accurately ascertained and defined.

More than half the surface of the globe, including long groups of islands and vast expanses of ocean, remained unexplored, even after regular naval routes had been formed round the Cape of Good Hope, and Cape Horn; yet there soon arose the belief of an Austral continent, as extensive, and as abounding in wealth, as that which had been discovered by Columbus.

The Portuguese, so long the most skilful and intrepid navigators of the ocean, appear to have been the first who threw any light upon this fifth and most remote portion of the earth; in less than twenty years after their passage of the Cape, they had reached the most extreme islands of the Oriental Archipelago, including Java and the Moluccas, and appear even to have observed some parts of the coast of New Guinea.

The Spaniards, during their early and adventurous career, made strenuous efforts to explore the southern seas; Magellan, as already observed, by his first circumnavigation of the globe, effected a grand step in geographical discovery. Alvaro Mendana, in 1568, sailed from Lima, and, after crossing the breadth of the Pacific, discovered a group of large maritime lands, to which, from a chimerical reference to Ophir, he gave the name of "Islands of Solomon;" they appear to be part of that great group which forms the outer range of Australasia. Mendana set out on a second voyage, and reached the same quarter, but, by some fatality, could not again find the islands formerly discovered. Quiros made a still more important expedition; he passed through the Polynesian group; and Sagitaria, one of the islands discovered by him, appears clearly identified with Otaheite; he terminated his voyage, like Mendana, among the exterior islands of Australasia; and with him expired the spirit of Spanish enterprise.

The Dutch, when they had expelled the Portuguese from Java and the Spice Islands, and had established in them the centre of their Indian dominion, were placed in such close proximity with New Holland, that it was scarcely possible for a great maritime nation to avoid extending their search to that region. Van Diemen, the Dutch governor of India about the middle of the 17th century, greatly promoted this object, and sent successive vessels to explore the coast of New Holland. Hertog, Carpenter, Nuytz, and Ulaming, made very extensive observations on the northern and western shores, but found them so dreary and unpromising, that no settlement of any description was ever attempted. Abel Tasman, however, went beyond his predecessors; he reached the southern extremity of this great mass of land, to which he gave the name of Van Diemen, without discovering it to be an island; he then sailed across, surveyed the western coast of New Zealand, and returned home by the Friendly Islands. This important range of discovery was not followed up; it refuted, however, the delineation by which New Holland had been made part of the imagined Austral continent. In the newly arranged charts, that continent still remained, but with its position shifted further to the south, and New Zealand probably contributing to form part of its fancied outline.

The English nation, by the voyages of several navigators, and particularly of Cook, secured the glory of fully exploring the depths of the great Pacific. The previous voyages of Byron, Wallis, and Carteret, had already made known some of the interesting groups of islands with which its vast surface is studded. Cook fully traced the great chains of the Society Islands, and of the Friendly Islands; he discovered and surveyed the eastern coasts of New Holland and Van Diemen's Land. He settled the form and relations of New Zealand, New Caledonia, and the other great Australasian lands and islands. This side he passed thrice the Antarctic circle, and, ranging along the yet unvisited borders of the southern pole solved, by re-

futing, the famous modern hypothesis of an Austral continent. He navigated also through the northern Pacific, observed carefully the group of the Sandwich Islands, and established, in the manner before pointed out, the relation between the continents of Asia and America. Many eminent navigators, among the French, La Pérouse, Marchand, D'Entrecasteaux; among the Russians, Kotzebue and Krusenstern; among the English, Vancouver and Beechy, followed; and, though the grand prizes of discovery had been carried off, found still some gleanings in so vast a field. The circumnavigation of the globe has ended in becoming a mere trading voyage, which conveys neither name nor glory to him by whom it is achieved. Captain Weddell, however, has lately, in New South Shetland, found a tract of land situated nearer to the Antarctic pole than any previously supposed to exist.

New Holland, much the most extensive of the lands belonging to the southern hemisphere, and rendered doubly interesting by its recent relations with Europe, has formed the theatre of late southern discoveries. Bass, in an open boat, found the strait which bears his name, separating New Holland from Van Diemen's Land, and making the latter a separate island. Baudin and Flinders, contemporaneously employed by the French and English nations, made a continuous survey of the vast circuit of its coasts, which had been before touched only at partial points. At a later period, Freycinet made some additional observations; and King found still a great extent of north and northwestern coast to survey for the first time. More recently, the discovery of Swan River and its shores, promises to redeem the reproach of sterility, which had been attached to the whole western coast of this continent; the interior on the eastern side also, though guarded by steep and lofty barriers, has been penetrated to a considerable depth, and found to contain extensive plains traversed by large rivers. Still the explored tracts form only a small proportion of the vast surface of this southern continent."

The idea, that America, at the north, tapered to a point, like South America, had prevailed for a long time after the discovery of the continent; and to discover the supposed passage at the north, became the object of European enterprise.

The English took the lead in this important career. Under the reign of Queen Elizabeth, Froisher and Davis made each three successive voyages. One discovered the entrance into Hudson's Bay, the other found the entrance into the great sea which bears the name of Baffin's Bay; but, partly arrested by the well-known obstructions to which these seas are liable, partly diverted by a chimerical search after gold, they could not penetrate beyond the numerous islands and inlets by which these entrances are beset. Hudson, in 1610, steered a bolder course, and entered the vast bay, which has received its appellation from that great navigator, who there unfortunately terminated his adventurous career. The treachery of a ferocious and mutinous crew exposed him on these frozen and desolate shores, where he miserably perished. Sir Thomas Button followed in 1612, and finding himself in the middle of this capacious basin, imagined himself already in the Pacific, and stood full sail to the westward. To his utter dismay he came to the long, continuous line of shore which forms the western boundary of Hudson's Bay. He expressed his disappointment by giving to the coast the name of 'Hope checked.' Bylot and Baffin, who followed three years after, were stopped by the ice at Southampton Island. Baffin, however, made afterwards a more important voyage, in which he completely rounded the shores of that great sea which bears his name, and which, appearing to him to be inclosed on all sides by land, has been denominated Baffin's Bay. The error involved in this appellation deterred subsequent navigators from any further attempt for Baffin, in passing the great opening of Lancaster sound, had concluded it to be merely a gulf. From that period the English navigators, though they ceased not to view this object with ardor, hoped to fulfil it only by the channel of Hudson's Bay. In 1631, two vessels were sent thither under Fox and James. The latter, entangled in some of the southern bays, returned after dreadful sufferings from the cold of the winter; but the former, quaintly calling himself Northwest Fox, explored a part of that great opening call-

ed Sir Thomas Roe's *Welcome*, which appeared now to afford almost the only hope of a passage; but he stopped short at a point which he termed 'Fox's farthest.' Under Charles the Second, a company was formed for the purpose of settlement and commerce in Hudson's Bay, and engaged to make the most strenuous exertions to discover a western passage; but it is believed, that the only exertions really made by the Company tended to prevent any such discovery. Middleton, an officer in their service, was sent out in 1741, sailed up the *Welcome*, and believed himself to have discovered, that the head of that channel was completely closed. He was strongly charged with having received a high bribe from the Hudson's Bay Company to stifle the discovery, and Moor and Smith were sent out in the following year with the most sanguine hopes; but when they returned without having effected any thing, the public expectations were greatly abated. It became the general impression, that America, on this side, formed a mass of unbroken land, and that the long sought passage had no existence.

New views of the extent and form of the northern extremities of America were opened by the discoveries of Cook, corroborated by those of some other English navigators in the Northern Pacific. It appeared that America there stretched away to the northwest, till it reached a breadth equal to one fourth part of the circumference of the globe. Cook penetrated, indeed, through the strait which bounds the continent and separates it from Asia; but the coast appeared there extending indefinitely north; and it became a general impression, that America formed a huge unbroken mass of land approaching the Pole, and perhaps reaching that ultimate point of the globe. This belief received a sudden shock from Hearne's voyage down the Copper Mine River, and his discovery of the sea into which it fell, in a latitude not higher than that of the north of Hudson's Bay. Soon after, Sir Alexander Mackenzie traced also to the sea another river twenty degrees further west. There was now a strong presumption, that a sea bounded the whole of America to the north, and that there really was such a passage as had been so long sought, and might be found, were it not too closely barred by ice and tempest. The British administration, animated with an active and laudable zeal in the cause of discovery, determined that no possible effort should be omitted by which this important and long agitated question might be brought to a final decision.

A series of exploratory voyages was now begun. Captain Ross, in 1818, made the circuit of Baffin's Bay, and returned with the belief, that no opening existed; Lieuten-

ant Parry, second in command, formed a different judgment, and, having satisfied the Admiralty as to his grounds of belief, was sent out with the command of a new expedition. In this memorable voyage, Captain Parry penetrated through Lancaster Sound, which he found to widen gradually, until it opened into the expanse of the Polar Sea. He did not touch on any part of the American coast, but found parallel to it a chain of large islands; and his progress through these was arrested, not by hand, but by straits and channels encumbered with ice. In consideration of these obstacles, his next attempt was made through Hudson's Bay, by the yet imperfectly explored channel of the *Welcome*. Struggling through various obstacles, he reached at length a point considerably beyond that where Middleton had stopped, and found a strait opening from Hudson's Bay into the Polar Sea. This strait was, however, so narrow, and so completely blocked with ice, that there appeared no room to hope, that it would ever afford an open passage. Captain Parry was therefore again sent out in his first direction; but he made no material addition to his former discoveries. Meantime a land journey, under Captain Franklin, following in the footsteps of Hearne, reached the sea, and discovered a considerable extent of the hitherto unknown northern coast of the American continent. A tolerably clear glimpse was thus obtained of its extent and boundaries; and the zealous efforts of government were employed to verify the whole by actual survey. A second expedition under Captain Franklin extended this survey over three fourths of this boundary coast, and reached beyond the 149th degree of longitude. Meantime an expedition, under Captain Beechy, sent to meet Captain Franklin from the westward, passed the icy Cape of Cook, and arrived at nearly 156° W. longitude; between which point and Captain Franklin's farthest limit there intervened only 7°, or 150 miles.

The belief was hence entertained, that the whole coast extended in a line not varying much from the 70th degree of latitude; but the important expedition which Captain Ross has just achieved through so many difficulties, proves the existence of a large peninsula, extending as far north as 74° N latitude. It remains still probable, that a naval passage may exist further north, in the line of Captain Parry's first voyage. But the encumbering ice is so thick, and so wedged into various straits and channels, that probably no vessel will ever be able even once to work its way through; and certainly a ship could never set out with any assurance of thus finding its way from the Atlantic into the Pacific.



GEOGRAPHICAL DEFINITIONS.

Altitude, in geography, is employed to denote the perpendicular height of any object, as the altitude of a mountain is its height above a given level, generally that of the sea.

Antarctic is a term applied, in opposition to *Arctic*, to the south pole, to the regions which encompass it, and to the circle by which they are supposed to be bounded at the distance of $23^{\circ} 28'$ from the pole.

Antipodes is a term applied to those inhabitants of the terrestrial globe who live diametrically opposite to each other. It is derived from the circumstance of their being opposed feet to feet. As the antipodes are every way distant 180° from each other, they have equal latitudes, the one north and the other south. They have also the same seasons and length of day and night, but at contrary times, it being summer with one while it is winter with the other, and day with one while it is night with the other.

Archipelago is a term applied to any part of the sea containing numerous islands, particularly to that part of the Mediterranean situated between the coast of Asia Minor and European Turkey.

Basin is a term employed to denote those lower tracts of the earth's surface which are watered by large rivers, and into which the waters of the adjacent districts descend.

Bay is an arm or portion of the sea extending into the land; as the Bay of Biscay.

Cape is the termination of a promontory, or portion of land projecting into the sea or a lake; as the Cape of Good Hope.

Cardinal Points of the compass are the east, west, north, and south points of the horizon. These divide the horizon into four equal parts of 90° each.

Channel is the bed of a river. It is also applied to an arm of the sea; as the Bristol Channel.

Chart is a representation of the whole or part of the earth's surface, on a plane. The word is generally employed to denote maps of particular parts of the ocean, with the surrounding coasts, capes, bays, headlands, &c.

Circles of the Sphere are such as are supposed to be described either on the surface of the earth, or on the apparent sphere of the heavens. They are generally divided into two

classes, great and small; the former dividing the surface into two equal, the latter into two unequal parts. The great circles are the meridians, equator, ecliptic, and horizon; the small circles are parallels of latitude, &c.

Circles Polar are the two circles which encompass the polar regions, and are $23\frac{1}{2}^{\circ}$ degrees from the poles.

Climate is a term that expresses that particular combination of temperature and humidity to which any region or country is generally subject; or, in more general terms, it implies the actual state of the incumbent atmosphere.

Continent is a large tract of land, containing several contiguous countries, without any separation of its parts by the intervention of water.

Crater is the opening of a volcanic mountain from which the smoke and ignited matter issue.

Current is a body of water in motion, either on land or in the ocean.

Degree is the 360^{th} part of a circle, or the 30^{th} part of a sign. Each degree is divided into 60 equal parts or minutes, and each minute into 60 seconds.

Degree of latitude is that part of a meridian included between two points at which the difference in the elevation of any of the heavenly bodies, at the same instant, is equal to the 360^{th} part of a circle.

Degree of longitude is the space between two meridians, that make an angle of one degree with each other at the pole. The degrees of longitude at different latitudes are unequal, and correspond to those of latitudes only at the equator. As the meridians approach each other till they meet at the poles, the degrees of longitude continually decrease until they become nothing at those points; hence a degree of longitude in any latitude is less than a degree on the equator.

Delta is a term frequently applied to those triangular spaces of low land between the different mouths, or near the estuaries of great rivers, which have been formed by the alluvial deposits of their waters. Thus the lower part of Egypt is usually called the Delta.

Equator is the great circle of the spheres which is everywhere equally distant from the poles. It is thus supposed to divide the surface

of the sphere into equal hemispheres, the one north, and the other south. All places situated on the equator have no latitude, and the days and nights are always of the same length. Longitude is also reckoned in degrees of the equator.

Equinoctial is a great circle of the heavens corresponding to the equator on the earth. It cuts the horizon of any place in the east and west points; and when the sun arrives at this circle, it rises and sets in these points, and the days and nights are then equal all over the globe. Declination is reckoned north and south from it.

Equinoxes are the times when the sun enters the equinoctial points. This is about the 21st of March and the 23d of September; the former being the vernal, and the latter the autumnal equinox.

Evaporation is the conversion of water into vapor, which, by this process, is raised into the atmosphere, and, by a subsequent, but partial condensation, forms clouds. As a very considerable part of the earth's surface is covered with water, which is constantly evaporating and mixing with the atmosphere in the state of vapor, a precise determination of the rate of evaporation must be of great importance in physical geography. Accordingly, many experiments have been made by different philosophers to determine this point. From these we learn, that evaporation is confined entirely to the surface of the water, to which it is consequently proportional. Much more vapor, therefore, rises in maritime countries, or those interspersed with lakes, than in inland countries. More also rises during hot weather than cold; hence the quantity of evaporation depends upon the temperature.

Geography is a description of the earth's surface; but the enlarged sense of the term includes a description, both of the inhabitants and productions of the terrestrial globe. *Mathematical geography* describes the figure and magnitude of the earth, its diurnal and annual revolutions, the cause of day and night, the succession of the seasons, the method of determining the positions of places on the earth's surface, and the comparison of linear measures, with the construction and use of maps. *Physical geography* delineates the principal features in the aspect of nature, by which the diversified regions of the globe are distinguished from each other, and portrays their agency on its inhabitants and productions. *Civil or Political geography* delineates the empires, kingdoms, and states, which occupy the surface of the earth, and exhibits the monuments of human industry and skill.

Glaciers is a name given to extensive fields of ice among the Alps. Some of them clothe the elevated valleys on these lofty regions, while others envelope the sides and summits of the mountains; the former are denominated lower, and the latter upper glaciers. Those in

the valleys consist chiefly of solid ice. On the summits of the mountains they are composed of snow.

Gravitation is the tendency which every particle of matter has to every other particle, at finite distances from each other. What is called gravitation with respect to the gravitating body, is called attraction, in reference to the body gravitated to. As all bodies, whatever may be their nature or magnitude, are only aggregated particles, gravitation takes place proportionally between them; and this power thus becomes the most universal agent of the material world. It is by it that bodies retain their forms; that the component parts of the earth, and the other planets, are not dissipated in the boundless regions of space; that terrestrial bodies, when unsupported, descend to the earth; that the planets and their satellites are retained in their orbits; and that the solar system itself maintains its place in the universe.

Harbor is a place of safety for ships.

Hemisphere is half the globe when it is supposed to be cut through the centre by the plane of one of its great circles. Thus the equator separates the northern and southern hemispheres; the meridian divides the eastern and western, and the horizon the upper and lower.

Horizon is the great circle of the sphere which divides its surface into the upper and lower hemisphere. In this sense it is called the rational horizon, and its plane passes through the centre of the earth.

Horizon sensible or visible is the small circle of the sphere which bounds the observer's view, and separates the visible from the invisible part of the globe.

Island is a portion of land wholly encompassed by water; as Great Britain or Ireland.

Isthmus is a narrow neck of land uniting two continents, or frequently a peninsula to a continent; as the Isthmus of Darien.

Lake is a portion of water, either entirely surrounded by land, or having no other outlet than a river, by which its contents are discharged. When a lake is very extensive, it obtains the denomination of sea; as the Caspian Sea.

Latitude is the distance of a place from the equator, and is estimated in degrees, minutes, &c., on the arc of the meridian passing through the place. Hence the latitude is either north or south, as the place is situated on the north or south side of the equator. The latitude of a place is always equal to the elevation of the pole above the horizon of that place.

League is the 20th part of a degree.

Longitude is the distance of a place eastward or westward from the first meridian, and is measured on an arc of the equator. It is by the combination of latitude and longitude that the situation of a place on the earth's surface is determined. As a degree of longitude is the 360th

part of a circle, it is necessarily greatest at the equator, and thence decreases to the poles, where it is nothing.

Map is a plane figure, representing either the whole or a part of the earth's surface; being a projection of the different countries, seas, mountains, coast, rivers, and other features of the globe, in their relative situations and proportions, as nearly as the nature of the problem will admit; for a globular surface cannot be correctly represented on a plane. Maps are therefore either general or particular, as they represent the whole or part of the earth.

The object to be obtained by the construction of a map must determine both its kind and size. If it is to be a general map, embracing a large portion of the earth's surface, the size must be large, and the projection employed such as will introduce but little alteration into the configurations of the countries it contains. Otherwise, the multiplicity of objects it must comprehend, and the alteration they would undergo, would render the representation altogether inadequate to the purpose. If, for instance, it is intended to construct a planisphere to be used in the study of astronomical geography, the stereographic projection on the plane of the horizon is best adapted. If a map of the world, for the purposes of physical geography be the object, the plane of the meridian is to be preferred, as this enables the geographer to present the old and new continents unbroken; the one being exhibited in the eastern, and the other in the western. The principal aim in this choice should be to exhibit the most faithful picture of the regions to be represented, upon the largest scale which the size of the map will admit, and consequently to exclude every thing foreign to the object in view. The top of a map is considered as north, the bottom south, the right hand east, and the left hand west.

Measure. The English statute mile consists of 5,280 feet, 1,760 yards, or 8 furlongs. The Russian verst is little more than $\frac{1}{4}$ of a mile English. The Scotch and Irish mile is about $1\frac{1}{4}$ English. The Dutch, Spanish, and Polish, is about $3\frac{1}{4}$ English. The German is more than 4 English. The Swedish, Danish, and Hungarian, is from 5 to 6 English. The French common league is near 3 English. The English marine league is 3 English miles.

Meridian is a great circle, passing through the poles of the earth, and any given place on its surface. It therefore divides this surface into two hemispheres, the one being the eastern, and the other the western. The first meridian of any country is that from which its geographers, navigators, and astronomers commence their reckoning of longitude.

Minute of a degree, is the 60th part of a degree; this is subdivided into 60 seconds, and each of these again into thirds, when necessary.

Mountain is any considerable elevation on the

earth's surface. This name is applied both to detached heights, and connected groups or chains of these eminences.

North is that point of the horizon which is equally distant from the east and west points, and is diametrically opposed to the south.

Oasis is a term frequently applied to a fertile district amidst vast deserts of sand. Several of these occur in the sandy oceans of the African deserts; where the contrast was so great, as to induce the ancients to regard them as the *Hesperides*, or isles of the blessed.

Ocean is the term by which the vast mass of waters covering about two thirds of the earth's surface is designated. For the sake of perspicuity, geographers have supposed it to be divided into various parts, to which they have given particular names.

Pampas is a name given by the South Americans to the vast plains, which characterize their country.

Parallels of latitude are small circles of the sphere parallel to the equator.

Peninsula is any portion of land nearly surrounded by water. The term is generally applied to those parts which project into the ocean, and are joined to the main land by an isthmus.

Plateau is an elevated plain, or any high tableland terminated on all sides by declivities. The central parts of Asia, the middle regions of Spain, and the vast elevated lands on which Mexico is situated are all of this kind.

Polar circles are two small circles of the sphere which encompass the frigid zones, and are $23^{\circ} 28'$ distant from the poles.

Pole is the point on the earth's surface where it is penetrated by the axis. As this axis terminates in two opposite points, the one is the north and the other the south pole, and each is 90° from the equator.

Prairie is a term applied to the unwooded tracts in the great valley of the Mississippi.

Promontory is a portion of land projecting into the sea, the end of which is generally called a cape.

River is a considerable body of water collected in the more elevated parts of the land, and descending into the lower, either discharging itself into another river or flowing into the sea. The courses of rivers always mark the greatest declivities of land over which they flow, and their magnitude is generally proportional to the height and distance of their sources.

Savanna is a term by which the vast extended plains in America are frequently denoted.

Sea, in its general extent, implies the whole of that vast body of water which covers a great part of the globe. It is, however, used to denote a particular part of this fluid, as the Baltic Sea, White Sea, &c.

Solar System is that assemblage of planets and satellites which have the sun for their com-

mon centre, and which revolve about him, or rather about the centre of gravity of the system.

Solstice is that point of time in which the sun is at his greatest distance from the equator, or when he is in those points of the ecliptic which touch the tropic of Cancer and Capricorn. There are, therefore, two solstices in the year, the one when the day is the longest, and the other when it is the shortest.

Sound is a small sea so shallow that it may be sounded.

South is one of the cardinal points of the compass, and that which is opposed to north.

Sphere, in geography, generally implies the relative positions of the equator and the horizon at any point on the earth's surface. Or, as the horizon varies with the position of the observer, it implies the relation of his situation with respect to the equator. As there can only be three distinct positions of these two circles, so there are said to be three kinds of spheres. When the equator and horizon intersect each other, at right angles, the position of the sphere is called a *right sphere*, which can be the case with those who live at the equator only. When the equator coincides with the horizon, and the parallels of latitude are parallel to it, the position is denominated a *parallel sphere*. This can only take place at the poles. In all other cases, the equator and horizon intersect each other obliquely, and then the position is called an *oblique sphere*.

Steppes are plains of great extent, and wholly destitute of the larger species of vegetables. This term is generally employed to denote

plains of this kind in Europe and Asia, while the words *savanna* and *pampas* signify the same thing in America.

Twilight is the faint light between perfect day and complete night. It is occasioned by the atmosphere refracting the rays of the sun after he has descended below the horizon. Its duration, therefore, varies not only with the latitude of the place, but also with the time of the year.

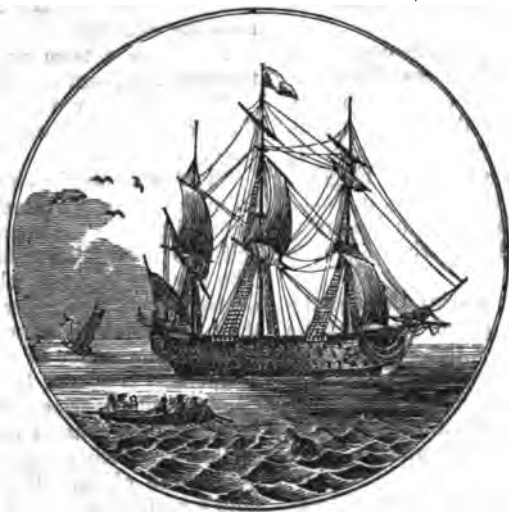
Vale signifies an extent of low country lying between ranges of higher ground. *Vale* and *valley* have distinct and appropriate meanings; the word *valley* is the diminutive of *vale*.

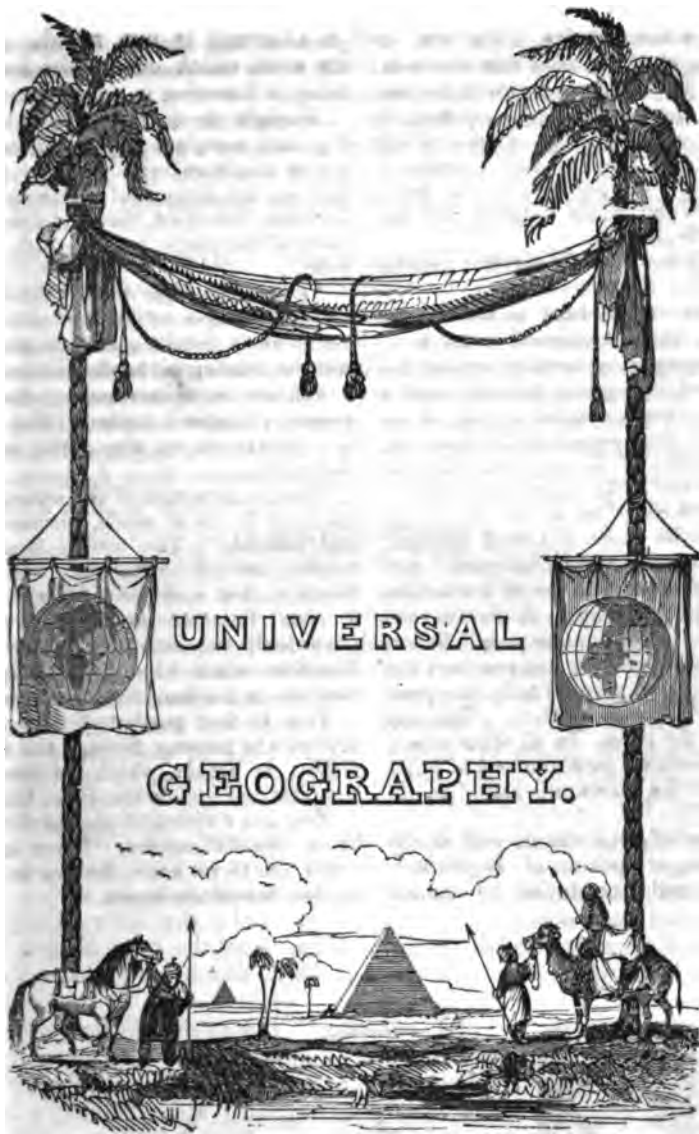
Volcano is a mountain which emits fire, smoke, or ignited matter. The number of active volcanoes on the globe is estimated at about 200.

Wind is a current of the atmosphere. There are three kinds of winds, permanent, periodical, and variable. The former blow between the tropics, and are called trade winds. Periodical winds, called monsoons, blow with great force in one direction nearly half the year, and towards the opposite point during the remainder. Variable winds blow from every point of the compass in the temperate regions of the globe.

Year is that portion of time which the sun occupies in passing through the 12 signs of the zodiac, or rather, which the earth requires to complete one revolution about the sun.

Zone is a division of the earth's surface made by two parallel circles. There are five of these zones, the torrid zone, the two frigid zones, and the two temperate zones.





INTRODUCTION.

I. ASTRONOMICAL PRINCIPLES.

1. *General Views of the Universe.* If we look upward, we observe a blue vault stretched over our heads, which at night is illuminated by a multitude of stars. If we go to Europe, we observe the same wonderful display above us. If we travel to Arabia, or China, or the islands of the Pacific, or to the Polar regions, wherever we may go, still the sky is over us, and the sun, moon, and stars shine down upon us. The earth is evidently swung in the air like a ball, supported by no foundation, and only kept in its place by the power of an Almighty Being.

If we keep our attention fixed upon our earth and the heavenly bodies, we shall soon discover that several of them are in motion. The moon revolves around the globe. Some of

the stars change their places. The sun itself is observed to turn round. If we investigate still further, we shall discover that these brilliant orbs, which occupy the heavens, are all of them worlds, some of them larger and some smaller, all moving in their appointed courses, and all fulfilling the will of the Almighty Architect who made them.

The study of the heavenly bodies is called astronomy : geography, strictly speaking, is a description of the earth. However interesting and wonderful the subject of astronomy may be, we can only attend to it here, so far as may be necessary to complete our view of the globe we inhabit.

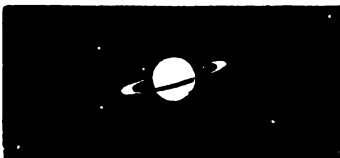
2. *Fixed Stars. Constellations.* The stars nearest to our earth are grouped into signs or constellations, for the convenience of description ; but the more distant appear to the eye as nebulous patches or streaks of diluted light, which optical instruments have enabled us to resolve partially into clusters of stars, and these analogy teaches us to regard as myriads of suns ; while imagination, ranging through illimitable space, pictures still more remote orbs, whose light has for ages travelled the vast profound, without yet reaching the abodes of man. The great mass of these stars appear to us to remain in the same relative situation, and have therefore been called *Fixed Stars*, although it is probable that they are all in a state of motion. Their number seems to be beyond calculation, their distance from the earth is too great to be measured by human skill ; but mathematical considerations show us, that it cannot be so small as nineteen trillions of miles ; how much larger it may be we know not.

3. *Solar System.* But the celestial bodies with which we are most familiarly acquainted, are those which are called *planets* or wanderers, and which revolve around the sun as their common centre of gravity. These bodies, of which the terraqueous globe is one, together with several secondary planets which revolve around the larger, an unknown number of comets, and the Sun itself, the great central mass, form what is called the *Solar System*.

(1.) *Primary Planets.* Those planets which revolve around the sun are called *primary* planets, and the number known is twenty six, beside our Earth, but it is not at all improbable that there may be others yet undiscovered. Four of them are remarkably large and brilliant. Venus, Mars, Jupiter, and Saturn ; another, Mercury, is also visible to the naked eye as a large star, but, on account of its nearness to the sun, is seldom conspicuous ; a sixth, Uranus or Herschel, is barely discernible without a telescope ; the remainder including Neptune and the asteroids, are not visible to the naked eye. Five of these planets, Mercury, Venus, Mars, Jupiter, and Saturn, have been known and named from the earliest ages of history ; Uranus or Herschel was discovered by Herschel in 1781 ; the other twenty have been discovered still more recently. Saturn is distinguished from the other planets by its being surrounded by two luminous rings concentric with itself, which are visible only by means of a telescope.



The Moon.



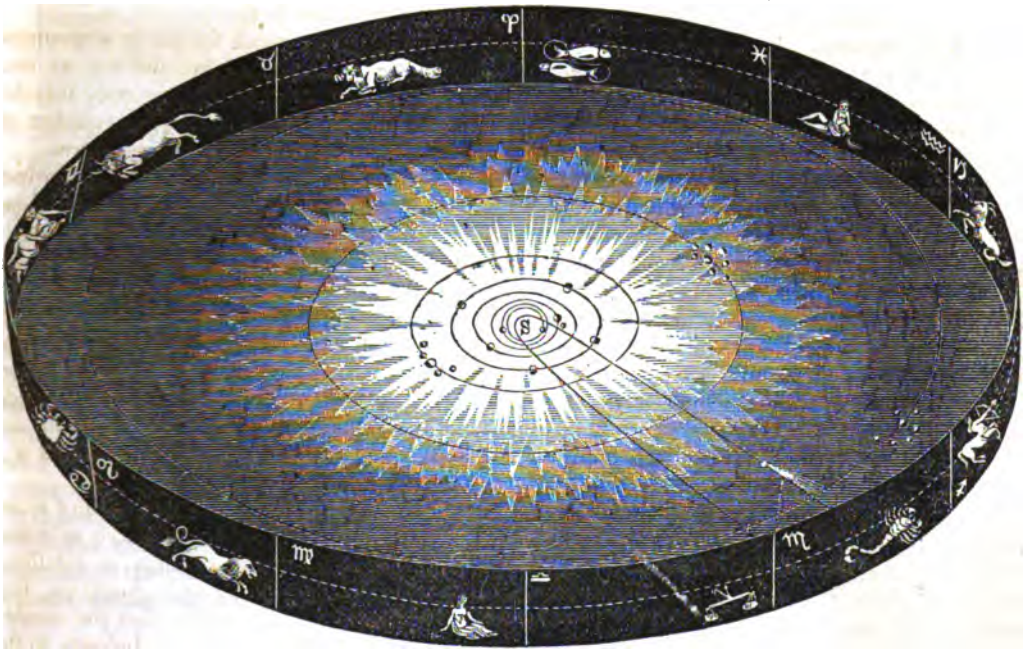
Saturn with its Satellites.

(2.) *Satellites.* The smaller bodies, which revolve round several of the primary planets, and probably serve as moons to their inhabitants, are called *secondary* planets or *satellites*. The number of satellites certainly known is fourteen, four more are suspected, and it is not impossible that the number may even be larger ; of these, one, the moon, belongs to the earth, four to Jupiter, seven to Saturn, and certainly two, probably five or six, to Uranus.

(3.) *Comets.* A third class of bodies belonging to the solar system, are the *comets*, with the nature of which we have but slight acquaintance. Their actual number is unknown, but is supposed to amount to some thousands. They generally consist of a large and splendid, but ill-defined nebulous mass of light, called the *head*, which is usually much brighter towards the centre, and offers the appearance of a vivid *nucleus*, like a star or planet. From the head, and in a direction opposite to that in which the sun is situated from the comet, appear to diverge two streams of light, which grow broader and more diffused at a distance from the head, and which sometimes unite at a little distance behind it, and sometimes continue distinct for a great part of their course ; this is called the *tail*. Some comets, however, have no tail, and some have as many as five or

six. The length of these appendages is sometimes immense ; that of the comet of 1680 was 40 million leagues. These bodies revolve round the sun in very elliptic orbits, some moving with great velocity, others with extreme slowness, some in a direct, and others in a retrograde course ; but it has been shown that their motions are regulated by the same general laws as those of the planets, and the times of the revolutions of several are known.

4. Rotation of the Sun and Planets. From the phenomena of the spots, which, by the aid of a telescope, are visible on the sun's disc, we are led to the conclusion, that that body revolves from east to west on an axis, in about twenty-five days and a half. If a spot is carefully watched, when first discovered on the eastern edge of the disc, it will be found to move gradually toward the centre, and thence toward the western edge, until at length it entirely disappears in that direction ; and in about fourteen days it is often seen again on the eastern side. That the moon, and Mercury, Venus, Mars, Jupiter, and Saturn, have each a rotation from west to east is inferred in like manner from the spots that are seen to traverse their discs. The moon always presents the same side to the earth, and must, therefore, revolve on her axis in the same time in which she is carried round the earth by her revolution in her orbit. In the remaining planets no appearances have been discovered which enable us to ascertain whether or not they revolve on axes ; though from analogy it is highly probable that they do.



The Ecliptic.

5. Apparent Annual Motion of the Sun. Zodiac. Beside the apparent daily motion of the sun round the earth, he also appears to move eastward among the fixed stars. The circle which the plane of the path or orbit thus annually described, marks out on the sphere of the heavens, is called the *ecliptic*. It passes through twelve constellations, which are called the *twelve signs*. This has given rise to the division of the ecliptic into twelve equal parts, which are also called *signs*, and each of which of course contains 30 degrees, or one-twelfth of a whole circle of 360 degrees. The twelve signs are contained in a zone or belt of the starry heavens, 47 degrees in breadth, called the *Zodiac*. The names of these constellations, with the characters by which they are usually denoted, are as follows :

Aries or Ram ♈.	} Spring Signs.	Libra or Scales ♎.	} Autumn Signs.
Taurus or Bull ♉.		Scorpio or Scorpion ♏.	
Gemini or Twins ♊.		Sagittarius or Archer ♐.	
Cancer or Crab ♋.	} Summer Signs.	Capricornus or Goat ♑.	} Winter Signs.
Leo or Lion ♌.		Aquarius or Water Carrier ♒.	
Virgo or Virgin ♍.		Pisces or Fishes ♓.	



Constellations.

6. *Equinox. Solstice.* A circle of the celestial sphere, whose plane passes through the earth's centre, and is perpendicular to its axis, is called the *celestial equator*; this circle is cut by the ecliptic in two opposite points, called the *equinoctial points*. The first point of Aries coincides with the point of the *vernal equinox*, and the first point of Libra with that of the *autumnal equinox*. As the sun on leaving the point of the vernal equinox advances in the ecliptic, his meridian altitude above our horizon daily increases, and hence arises a gradual increase in the length of the day, until the sun reaches his greatest altitude, and the day acquires its greatest length; the point of the ecliptic at which the maximum takes place is called the *Summer Solstice*. Having reached this point the sun now turns back towards the equator which he crosses at the point of the autumnal equinox; his meridian altitude and the length of the days are now gradually diminishing, and the point at which they become least is called the *Winter Solstice*. The vernal equinox falls about the 21st of March, the summer solstice on the 21st of June, the autumnal equinox about the 23d of September, and the winter solstice the 22d of December.

7 Principal Elements of the Solar System.

Names.	Sidereal Period Days.	Mean distance from Sun. Miles.	Rotation. Days.	Diameter. Miles.	Names.	Sidereal Period. Days.	Mean distance from Sun. Miles.	Rotation. Days.	Diameter Miles
Sun,	—	—	25.05	882,000	Ceres,	1681.40	262,000,000	?	?
Mercury,	87.97	36,000,000	1.01	3,200	Pallas,	1686.54	263,000,000	?	?
Venus,	224.70	68,000,000	.97	7,800	Jupiter,	4332.58	484,000,000	.41	87,000
Earth,	365.26	95,000,000	1	7,920	Saturn,	10,759.23	900,000,000	.43	79,000
Mars,	686.98	143,000,000	1.03	4,100	Herschel or Uranus,	30,686.82	1820,000,000	?	35,000
Vesta,	1325.74	224,000,000	?	?	Moon,	27.32	—	27.32	2,160
Juno,	1592.66	253,000,000	?	?					

The following illustration of the relative magnitudes and distances of the parts of our system, as stated in the above table, is given by the celebrated astronomer Herschel. "Choose," says he, "any well-levelled field or bowling-green. On it place a globe, two feet in diameter; this will represent the sun; Mercury will be represented by a grain of mustard-seed, on the circumference of a circle 164 feet in diameter for its orbit; Venus a pea, on a circle 284 feet in diameter; the Earth also a pea, on a circle of 430 feet; Mars a rather large pin's head, on

a circle of 654 feet ; Juno, Ceres, Vesta, and Pallas, grains of sand, in orbits of from 1000 to 1200 feet. Jupiter, a moderate-sized orange in a circle nearly half a mile across ; Saturn, a small orange, in a circle of four fifths of a mile ; and Uranus, a full-sized cherry or small plum upon the circumference of a circle, more than a mile and a half in diameter."

II. THE EARTH, ITS FIGURE, DIMENSIONS, &c.

1. *The Earth.* The earth is a planet, of a globular shape, and forming very nearly a perfect globe or sphere. Like the other planets it has two motions ; its rotation on its own axis, completed in about 23 hours and 56 minutes, causes the apparent daily revolution of the sun and heavens round the earth, and thus produces the alternation of day and night ; its motion in its orbit, which carries it round the sun in about 365 days and 6 hours, produces the alternation of the seasons. That the earth is round, is proved by several considerations, such as the shape of its shadow on the moon during an eclipse ; the fact that it is constantly circumnavigated, so that a ship, by steering in a general direction, either eastward or westward, arrives again at its point of departure, and also by the appearances, exhibited by vessels at sea. At a short

distance the hull of the vessel is sunk below the horizon ; a little further the lower sails disappear, and then the topsails.

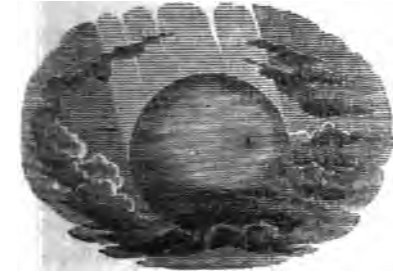


Illustration of the sphericity of the Earth.

2. *Axis, Poles.* The axis of the earth is an imaginary line passing through its centre, and about which it revolves ; the extremities of the axis are called the *poles* ; the north pole is called *Arctic* pole, from its being in

the direction of the Great Bear (in Greek *Arctos*) ; the south pole, the *Antarctic*.

3. *Equator, Meridian.* An imaginary great circle, passing round the earth from east to west, and equally distant from both poles, is called the *equator* ; imaginary great circles drawn round the earth from north to south, passing through the poles, and intersecting the equator at right angles, are called *meridians*.

4. *Latitude and Longitude.* The relative position of a place on the earth's surface is determined by its distance north or south of the equator, and its distance east or west of any given meridian, called the *prime meridian* ; on English and American maps and globes the meridian of Greenwich in England, is generally assumed as the prime meridian ; but American geographers often adopt that of Washington, and other nations those of their respective capitals. Distance from the equator is called *latitude* ; distance from the prime meridian is called *longitude*.

5. *Degrees, &c.* The geographical measure of distance is a *degree* or 360th part of a great circle of the earth ; the degree is divided into 60 minutes and the minute into 60 seconds. Circles passing round the earth parallel to the equator at given distances from each other, whether of one, five, or ten degrees, are called *parallels* of latitude, and serve to show at what distance from the equator are the points through which they pass. In the same way meridians are drawn round the earth's surface from north to south at the same distances.

6. *Tropics.* In spring and autumn, the sun appears to move round the earth over the equatorial regions ; but in summer the sun appears to be 23½ degrees north, and in winter the same distance south of the equator. Circles passing round the earth at these points are called *tropics*. That at the south of the equator being the tropic of Capricorn, and that at the north the tropic of Cancer.

7. *Polar Circles.* When the sun is in the tropic of Cancer, he is not visible round the Antarctic pole for a distance of 23½ degrees ; and on the contrary, when he is in the tropic of

Capricorn, he is not visible for the same distance round the Arctic pole. Circles drawn round the poles at that distance, are called respectively the *Arctic* and *Antarctic circle*.

8. *Zones.* These circles and the tropics divide the surface of the earth into five bands or *zones*; that which lies between the tropics, on both sides of the equator is called the *torrid zone*; the band between the tropic of Cancer and the Arctic circle, is called the *northern temperate zone*, and that included within the Arctic circle the *northern frigid zone*. Between the tropic of Capricorn and the Antarctic circle, is the *southern temperate zone*, and within the Antarctic circle, the *southern frigid zone*.

9. *Dimensions and Divisions of the Earth.* The mean diameter of the earth is 7,912 miles; its circumference at the equator nearly 24,900 miles; and its area 198 million square miles. The surface is divided into land and water; the former occupies about 50 million square miles, and the latter 148 millions, being nearly three fourths of the whole surface.

10. *Representation of the Earth.* In order to obtain a correct conception of the appearance of the surface of the earth, representations of that surface, on a small scale, ought to be presented to the eye. There are two ways in which the earth may be thus represented to our view; viz. by globes and by maps.

11. *Globes.* The appearance of the surface of the earth may be delineated upon the surface of a solid having the same figure as the earth. This is the most accurate mode of representation, for an exact image of it may in this way be formed. Such an image of the earth is called a terrestrial globe.



12. *Maps.* The other way of representing the earth's surface, is by drawing a part of it upon a plane. Such drawings are called maps. The necessity of maps arises from large globes being very expensive and inconvenient for use; while on small ones sufficient details cannot be introduced.

Maps are constructed by making a projection of the globe, on the plane of some particular circle,

supposing the eye placed at some particular point, according to the rules of perspective.

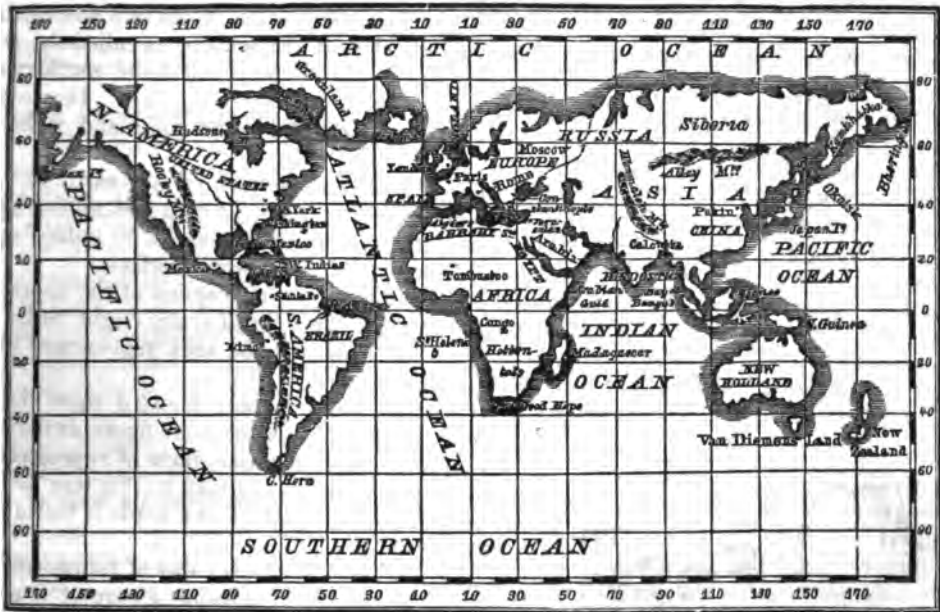
In maps three things are required; First to show the latitude and longitude of places, which is done by drawing a certain number of meridians and parallels of latitude; Secondly, the shape of the countries must be exhibited as accurately as possible; for real accuracy cannot be obtained by projection, because the map is on a plane surface, whereas the earth is globular; Thirdly, the bearings of places, and their distances from each other must be shown.

In all maps, the upper part is the north, the lower the south, the right the east, and the left the west. On the right and left the degrees of latitude are marked.

III. LAND AND WATER.

1. *Continents.* The land surface of the earth is divided into three vast masses called *continents*, and numerous smaller tracts, called *islands*. The *eastern* continent comprises three great divisions called Asia, Europe, and Africa, lying chiefly upon the north of the equator; the *western* continent comprises two divisions called North America and South America; and the *southern* continent or New Holland lies to the south of the equator. The eastern continent has an area of 31,500,000 square miles; the western of 14,800,000; and the southern of 4,200,000.

2. *Islands.* Smaller portions of land scattered over the ocean, or otherwise surrounded by water, are called *islands*; some of these form considerable masses, as Borneo and Madagascar, the largest known islands. A number of islands lying near each other is called a *group* or cluster; several groups lying near each other are often called an *archipelago*. Small islands are also called *islets*; *keys* are rocky islets, which are sometimes numerous along the coasts of continents or large islands.



Map of the Earth on a plane surface.

The following table exhibits the principal islands throughout the globe, with their extent.

Name.	Extent. Sq. Ms.	Name.	Extent. Sq. Ms.	Name.	Extent. Sq. Ms.
New Holland	3,000,000	Luzon	65,000	Ireland	32,000
Borneo	300,000	Nippon	54,000	St. Domingo	28,000
Madagascar	220,000	Java	51,000	Sicily	10,455
New Guinea	200,000	Cuba	45,000	Sardinia	9,190
Sumatra	150,000	New Zealand N. Is.	43,600	Owyhee	4,000
Celebes	60,000	Iceland	40,000	Long Island	1,400
Great Britain	88,573	Newfoundland	38,500	Otaheite	600
Nova Zembla	81,000	New Zealand S. Is.	36,000		

3. *Capes, Peninsulas, &c.* A part of the land running out into the sea, and joined to the mainland only by a narrow neck is called a *peninsula*; projections of land of less extent, reaching but a little way into the sea are called *capess*, *headlands*, *promontories*, or *points*. A narrow neck of land joining larger masses is called an *isthmus*.

4. *Oceans.* There is in fact one continuous mass of water, called the *ocean*, surrounding the land which rises above its level in continents and islands; but for convenience sake different parts of it have distinct names given to them, as appears by the following table:

I. The great *Southeastern Basin*, the waters of which cover nearly half the globe, includes:

i. The *Pacific Ocean* 11,000 miles in length from east to west, and 8,000 in breadth, occupying a superficial space rather larger than the whole mass of the dry land. It extends from Behring's Straits on the north, to a line drawn from Cape Horn to Van Diemen's Land on the south; and from America on the East, to Asia, Malaysia, and Australia on the west. In consequence of the wide expanse of its surface it is remarkably exempt from storms, except near its mountainous shores, and hence its name. It is often also called the South Sea;

ii. The *Indian Ocean*, lying between Africa on the west, and Malaysia, and Australia on the east, and between Asia on the north, and a line drawn from the Cape of Good Hope to Van Diemen's Land on the south, is about 4,500 miles in length and breadth; it covers a surface of about 17,000,000 square miles;

iii. The *Southern or Antarctic Ocean* surrounds the south pole, lying to the south of a line drawn quite round the globe from Cape Horn, along the southern extremity of New Zealand,

Van Dieman's Land, and Africa, back to the point of starting. It embraces an area of 30,000,000 square miles. It is generally covered with floating ice as far north as 60° south latitude, and in higher latitudes appears to be blocked up by an impenetrable barrier of fixed ice.

II. The *Western Basin* forms a channel between the eastern and western continents, and washes their northern shores. It includes :

1. The *Atlantic Ocean* stretching from the Southern Ocean to the Arctic circle ; it is about 8,500 miles in length, varying much in breadth, and it covers an area of 25,000,000 square miles ;

11. The *Arctic Ocean* surrounding the north pole ; it is in part covered with impenetrable fields of perpetual ice, and it contains large masses of land of unknown extent. It is often called the Icy or Frozen Ocean or Polar Sea ;

5. *Uses of the Ocean.* Although it presents to the eye only the image of a watery waste, the ocean sustains an important part in the economy of nature. It is the fountain of those vapors which replenish the rivers and lakes, and dispense fertility to the soil. By its action on the atmosphere it tempers the extremes of heat and cold. It affords an inexhaustible supply of food and of salt, a substance hardly less important. As the great highway of commerce it connects the most distant parts of the globe, affording facilities of intercourse to nations the most remote from each other.

6. *Seas, Gulfs, and Bays.* When the ocean penetrates into the land forming a large expanse of water, this inland portion of the ocean is usually termed a *sea* ; such a body of water of less extent is generally called a *gulf* or *bay* ; but these three terms are often confounded.

The following are the principal bays : Baffin's, Hudson's, James's, Fundy, Passamaquoddy, Machias, Penobscot, Casco, Massachusetts, Buzzard's, Narragansett, Delaware, Chesapeake, Campeachy, Honduras, Bristol, All Saints, Cardigan, Donegal, Galway, Biscay, Bengal, Walwich, Fable, False, Angola, Natal, Saldanha, and Botany.

The following are the principal gulfs : St. Lawrence, Mexico, Darien, California, Panama, Guayaquil, St. George, Bothnia, Finland, Riga, Genoa, Naples, Tarento, Venice, Salonica, Persian, Ormus, Siam, Tonquin, Corea, Obi, Guinea.

The principal seas are the following : Chinese, Carribean, Mediterranean, Okhotsk, Celebes and Corea, Black, North, Red, Baltic, White, Azof, Marmora, and Irish.

7. *Strait, Sound, &c.* A narrow passage of water leading from one sea or gulf to another, is called a *strait* ; a wider passage between two large bodies of water is called a *channel* or *sound*.

The principal channels and straits are the following : Davis's, Hudson's, Belle Isle, Michillmackinac, Behring's, Magellan, Skager Rack, Cattegat, Dover, Gibraltar, Bonifacio, Messina, Dardanelles, Constantinople, English, St. George's, North, Babelmandel, Ormus, Mozambique, Sunda, Malacca, Endeavor, Bass's, Dampier's, and Cook's.

The following are the principal sounds : Long Island, Albemarle, Pamlico, Prince William's, Queen Charlotte's, and Nootka.

8. *Harbors, Roadsteads, &c.* Small bays or arms of the sea, completely landlocked, or so much so as to protect ships lying in them from the winds and the sea-swell, are called *ports*, *harbors*, or *havens* ; more open arms of the sea, which afford good anchoring ground, are called *roads* or *roadsteads*. A good harbor must be deep, capacious, and safe.

9. *Depth of the Ocean.* The bottom of the sea appears to have inequalities similar to the surface of the dry land, and the depth of the water is, therefore, various. There are vast spaces where no bottom has been found, and if it is true that the depth of the sea bears any analogy to the elevations of the dry land, it would be in some places from 20,000 to 26,000 feet ; the greatest depth ever sounded is 7,200 feet.

10. *Tides.* Tides are regular periodical oscillations in the waters of the ocean, which are caused by the attraction of the sun and moon, and which take place twice every twenty-four hours. In the open sea they are at their height three hours after the moon has passed the meridian of the place, and the meridian opposite. Their greatest elevations take place in narrow seas, where the action of the sun and moon is assisted by winds, currents, the position of the coast, &c. The highest tides known are in the Bay of Fundy, where the flood rises to the height of 70 feet.

11. *Currents.* Beside the motions produced by the tide, it has been found that there are permanent oceanic currents, always setting in the same direction. There is one called the *polar current* which sets from each pole towards the equator, as appears from the masses of

floating ice, constantly moving in that direction. Another current, called the *tropical* current, sets, within the tropics, from east to west ; so that vessels coming from Europe to America, descend to the latitude of the Canaries, where they are carried rapidly westward, and in going from America across the Pacific to Asia, a similar effect is observed. The *Gulf Stream* is one of the most remarkable and best known of the oceanic currents.



Whirlpool.

12. *Whirlpools.* When two opposite currents of about equal force meet one another, they sometimes, especially in narrow channels, turn upon a centre and assume a spiral form, giving rise to *whirlpools*. Sometimes the most violent of these, when agitated by tides or winds, become dangerous to navigators.

in inland seas or bays than in the open ocean. In some places springs of fresh water rise up in the midst of the sea. The bitterness of sea-water is supposed to be owing to the decomposed animal matter which it contains. It is easier to perceive the great advantages arising from the saltness of sea-water than to discover its origin. Without this saltness and without the agitation in which its waves are constantly kept, the ocean would become tainted. It is remarkable, that the saltness of the sea is less toward the poles than under the equator.

14. *Color of the Sea.* The green and yellow shades of the ocean arise from marine plants. The sparkling of the sea at night presents an imposing spectacle. A vessel, while ploughing her way through the billows, often appears to mark out a furrow of fire ; sometimes every stroke of the oar of a boat, emits a light either brilliant and dazzling, or tranquil and pearly. This wonderful phenomenon is supposed to be produced, at least in part, by multitudes of small phosphorescent animals that live in the water.

15. *Temperature of the Ocean.* The temperature of the sea changes much less suddenly than that of the atmosphere, and it is by no means subject to such extremes of heat and cold as the latter.

IV. SURFACE OF THE LAND.

1. *Inequalities of Surface.* The inequalities of the earth's surface arising from mountains and valleys, may be likened to the roughnesses on the rind of an orange compared with its general mass. The highest mountain known does not exceed five miles in perpendicular height ; this is only one 1600th part of the earth's diameter, and on a globe of 16 inches in diameter, such



View of the Alps.

a mountain would be represented by a protuberance of one hundredth part of an inch, which is about the thickness of drawing-paper. The deepest mine does not penetrate half a mile below the surface ; and a scratch or pin-hole duly representing it on the surface of such a globe, would not be perceptible without a magnifier. The greatest depth of the sea does not probably much exceed the greatest elevation of the continents, and the ocean would be represented by a mere film of liquid, such as in our model would be left by a brush dipped in color, and drawn over those parts intended to represent the sea.

2. *Mountains.* The greatest elevations of the earth's surface are called *mountains* ; elevations of an inferior height are called *hills*. Mountains are sometimes completely insulated, but they are more

commonly disposed in chains; a *chain* is a series of mountains, the bases of which are continuous. Several chains are often connected with each other, forming a *group*; and several groups in the same manner form a *system*.

The height of mountains is their elevation above the level of the sea, and as the bases are often situated upon elevated plains, the apparent height of the mountainous peaks is much less than their absolute height. Cols or necks are depressions in mountainous chains affording a passage from one declivity of the ridge to the opposite; they are sometimes called *gata*, *gaps*, or *passes*.

Heights of Principal Mountains.

Europe	Feet.	Asia.	Feet.	America.	Feet.
Mont Blanc (Alps),	15,781	Dhawalagiri (Himala),	26,862	Sorata (Bolivia),	25,000
Mont Rosa	15,555	Jamautri	25,500	Illimani, "	24,450
Jungfrau	13,720	Elburz (Caucasus),	18,500	Chimborazo (Peru),	21,440
Mont Perdu (Pyrenees),	11,253	Ararat (Armenia),	17,266	Cotopaxi (Peru),	18,880
Malahacen (Sierra Nevada),	11,673	Demavend (Persia),	14,700	Mt. Hooker (British America),	20,000
Ætna (Sicily),	10,963	Lebanon (Syria),	9,520	Popocatepetl (Mexico),	17,716
Parnassus (Greece),	8,000	Africa.		Orizaba	17,370
Ben Macdui (Scotland)	4,418	Geesh (Abyssinia),	15,000	Mt. St. Elias	17,670
Snowdon (Wales),	3,571	Teneriffe Peak (Canaries),	12,236	Long's Peak (United States),	13,630
Helvelyn (England),	3,055	Lupata (South Africa),	12,000	Black Mountain (N. Carolina),	6,628
		Atlas (Morocco),	11,400	Mt. Washington (N. Hampshire),	6,628
		Oceanica.			
		Mouna Koah (Sandwich I.),	18,400		
		Ophir (Sumatra),	13,842		

3. *Forms and Use of Mountains.* Mountains, in their exterior forms, exhibit some varieties, which strike the most inattentive observer. The highest mountains most frequently present a surface of naked rock. In some places they shoot up in the form of enormous crystals with sharp angles. Sometimes there appears an immense, steep, and abrupt surface, which seems to lay open to view the bowels of the mountain itself. These appearances are described under the names of *needles*, *peaks*, &c. There are other mountains, the tops of which present circular outlines, which give them an air of tranquillity. The mountains of New England and the Appalachian chain generally, are of this character. Some mountains rise in majestic and regular gradations, like a vast amphitheatre; others present a large mass cut perpendicularly in the form of an altar, like the Table Mountain at the Cape of Good Hope. There are mountains in China which resemble the heads of dragons, tigers, and bears. In other places there are labyrinths of rocks, which rise in the form of pillars. In the south-eastern part of France, there is a mountain in a single mass in the form of a large nine-pin. In another part of France, there are mountains which are described as resembling the old-fashioned frizzled wigs. In short, the varieties in the form of mountains, as described by travellers, seem to be almost infinite. Some of them are highly picturesque and beautiful, and fill the mind of the beholder with pleasing emotions. Others are lofty, rugged, and sublime, and awaken feelings of awe and astonishment.

The utility of mountains is very great. They attract the clouds and vapors, which become condensed by cold, and fall in the shape of snow and rain, thus giving birth to innumerable streams, which descend and spread fertility and beauty over the surface of the earth.

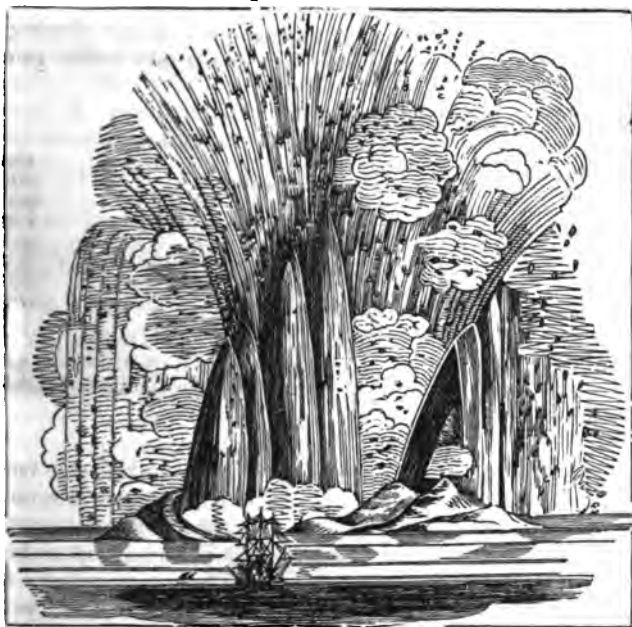


Volcanic Mountain; Vesuvius.

4. *Volcanoes.* Those mountains which send forth from their summits or sides, flame, smoke, ashes, and streams of melted matter or lava, are called *volcanoes*. The deep hollow from which these substances are emitted is called a *crater*. Some elevations merely discharge mud or air, and have received the name of *air* or *mud volcanoes*.

Many mountains present appearances, which prove that at some former time they must have been outlets of fire, although they have long ceased to have any volcanic action; these are called *extinct volcanoes*.

From most active volcanoes, smoke issues more or less constantly ; but the eruptions, which are discharges of stones, ashes, and lava, with columns of flame, violent explosions, and concussions of the earth, happen at irregular, and sometimes at long intervals. There are about 300 volcanoes upon the surface of the earth.



Volcanic Island in the Sea.

A vast volcanic zone surrounds Greece, Italy, Germany and France. Several islands in the Grecian Archipelago, have been raised from the sea by volcanic convulsions. Etna has burnt for many ages, and is surrounded by extinguished volcanoes, which appear still more ancient. The Lipari islands seem to be formed chiefly of the lava and other substances which have been thrown from their volcanoes. Other parts of Europe exhibit traces of volcanoes now extinguished. Iceland has several volcanoes, of which Heccla, is the most remarkable. The very bottom of the ocean in the neighborhood of this island, is sometimes convulsed, and the waves often heave up whole fields of pumice stones.

The origin of volcanoes is a subject upon which scientific men have entertained different opinions ; the modern geologists regard them as funnels, or outlets to the molten substance, of which they suppose the interior of the earth to be composed.

The eruption of a volcano is a most frightful and majestic phenomenon. The first signs which announce that the invisible combat of the elements has already commenced, are violent movements, which shake the earth afar off, prolonged bellowings and subterranean thunders, which roll in the sides of the agitated mountain. Soon the smoke ascends in the shape of a black column. This is dispersed by the winds, and formed into trains of clouds. A volume of flame rises above the clouds, seeming like a pillar of fire, which rests upon the ground and threatens to set the skies in a blaze. A black smoke environs it, and from time to time intercepts the dazzling brightness. Lightnings appear to flash from the midst of the burning mass. On a sudden, the vast pillar of fire seems to fall back into the crater, and its fearful splendor is succeeded by profound darkness. But now ashes, dross, and burning stones are projected in diverging lines, and fall around the mouth of the volcano. Enormous fragments of rocks appear to be heaved against the skies. A torrent of water is often thrown out with impetuosity, and rolls hissing over the inflamed rocks. There is then raised from the bottom of the crater a liquid mass of burning lava, which fills the cavity and reaches to the very top of the opening. This is the prelude to real disasters. The liquid matter overflows, and runs down the sides of the mountain. It advances like a large and impetuous river, destroys whatever it meets within its course, flows over those obstacles which it cannot overturn, passes along the ramparts of shaken cities, invades a space of country of several leagues in extent, and transforms, in a short time, flourishing fields into a burning plain.

5. *Earthquakes.* Earthquakes are supposed to be intimately connected with volcanoes, and usually take place in volcanic countries. There have been frequent earthquakes near the borders of the Mediterranean Sea, and around the Gulf of Mexico. These dreadful phenomena often change the surface of a country, so that it is difficult to recognise it. During the convulsion, enormous gaps in the earth appear to disclose to the living the empire of the dead ; these fissures emit blue flames and deadly vapors. Vineyards descend from their heights, and settle in the midst of fields of corn ; farms and gardens quit their places and become attached to distant villages ; towns are shaken down, villages are swallowed up, mountains sink into

valleys, lakes disappear, and rocks and islands rear their wet summits from the bosom of the foaming sea.

6. *Valleys.* The spaces which separate one mountain from another, or one chain from another, are called *valleys*, and their lowest part is generally the bed of a river, which rises in the higher grounds, or of a lake. The term valley is also applied in a wider sense to the whole extent of country drained by a river and its branches.

7. *Plains.* The surface of the earth seldom forms a perfect level for any great extent ; it has a more or less perceptible inclination, generally rising from the coasts towards the interior, and even those regions which are described as plains, have an undulating surface. In some instances there are extensive plains of great elevation, called *plateaux* or *table-lands*, the descent from which to the low countries, exhibits to the inhabitants of the latter the appearance of a long chain of mountains.

8. *Deserts, Steppes, &c.* There are vast tracts consisting merely of wide plains of sand or shingle, or occasionally broken only by bare rocky heights, destitute of water and vegetation, and shunned equally by man and beast ; these are called *deserts*. Interspersed over these oceans of sand, we sometimes find fertile spots, watered by springs and covered with trees, called *oases*. In some places we meet with vast plains entirely destitute of trees, but bearing grasses, saline and succulent plants, and dwarfish shrubs. Those which bear nutritive herbage are called *prairies*, *llanos*, or *pampas* ; while those which have a scanty, and often only a temporary vegetation, are called *steppes* or *karroos*.

V. LAKES AND RIVERS.



Winnepesaukee Lake, New Hampshire.

1. *Lakes.* An inland body of water not immediately connected with the ocean or any of its branches, is called a *lake* ; but some bodies of this description are also commonly called *seas*. They are generally fresh, but are salt when situated in districts of which the soil contains saline matter.

2. *Classes of Lakes.* There are four sorts of lakes. (1.) The first class includes those which have no outlet and receive no running water ; these are usually very small.

(2.) The second class comprises those which have an outlet, but which do not receive any running water. They are generally in elevated situations, and are often the sources of large rivers ; they are formed by springs rising up into a large hollow, until the water runs out over the lowest part of the edge of the basin.

(3.) The third class embraces those lakes which receive and discharge streams of water, and is the most numerous. These lakes are the receptacles of the waters of the neighboring country, but in general have but one outlet which bears the name of the principal river that enters the lake. Such a river is said to traverse or flow through the lake, though not with strict propriety, since its current is commonly lost in the general mass of waters, and the outlet is in fact a newly formed river. The largest lakes of this class are the great lakes which lie on the northern frontier of the United States, and of which the St. Lawrence is the only outlet to the sea.

(4.) The fourth class of lakes includes those which receive without discharging rivers. The largest of these is the Caspian Sea, which swallows up several large rivers ; Lake Aral also belongs to this class. They are both salt, and this is the case with most of those which have no outlet.

The following table exhibits the dimensions of the principal lakes.

Names.	Sq. ms.	Names.	Sq. ms.	Names.	Sq. ms.	Names.	Sq. ms.
Caspian	120,000	Slave	13,500	Ontario	8,200	Maeler	1,600
Superior	35,000	Winnipeg	12,500	Ladoga	6,000	Wetter	1,000
Michigan	25,000	Baikal	12,000	Nicaragua	5,000	Geneva	500
Huron	20,000	Erie	10,000	Lake of the Woods	2,800	Cayuga	480
Balkash	14,400	Aral	9,000	Wenner	2,400	Constance	400.
Maracaybo	14,000	Onega	9,000	Champlain	900		

3. *Periodical Lakes.* In tropical countries the violence of the rains often forms temporary lakes, covering spaces of several hundred miles in extent. South America has large lakes which are annually formed during the rainy season, and are therefore called *periodical* lakes ; they are again dried up by the heats of a vertical sun.

4. *Lagoons.* The waters of one river or several rivers, before reaching the sea, sometimes spread out over a large surface, filling a shallow basin, which communicates with the ocean by a narrow channel. The eastern shore of the Southern States, and the coasts of the Gulf of Mexico present a great number of these basins, described under the various names of sounds, lakes, and bays ; they may be more properly and conveniently denominated *lagoons*.

5. *Springs.* Springs are small reservoirs, which receive their waters from the neighboring ground through small channels, and which are usually discharged by overflowing. The origin of springs must be referred to various causes ; among these the most common are the falling of rain and dew, and the melting of ice and snow. Mountains attract the fogs and clouds which float around them ; consequently more rain and snow fall upon them than upon the plains. The waters descend, forming innumerable streams, some in the shape of rivers, and others in the form of springs.

Spouting springs are formed by having their source considerably elevated above the aperture at which they issue. They are constructed on the same principles as artificial fountains, — the column of water being thrown upwards by the pressure from above. Hot spouting springs doubtless obey the same laws, the water being heated by volcanic masses in the earth. Boiling springs are found in various countries. Periodical, or intermitting springs, are very curious works of nature. At Como, in Italy, there is one which rises and falls every hour. There is a spring in Provence, in France, which rises eight times in an hour, and another in Languedoc, the period of whose elevation each day, is fifty minutes later than the preceding day. England furnishes examples of several springs which rise and fall with the ebb and flow of the sea.

6. *Glaciers.* Glaciers, which crown the tops of the highest mountains, have a close connexion with the origin of springs. The snows which have accumulated for whole centuries, sink down and are consolidated by alternate thaws and frosts. Thus the tops of the mountains are covered with ice ; these masses gradually extend, and the high valleys become filled. The masses continuing to increase, sometimes for a series of years, even extend to the lower parts of the mountains. They have in Switzerland filled up whole valleys, buried villages, and shut up the pass between Le Valais and the Canton of Berne. The scenes which these bodies of ice present to the traveller, are various and striking ; sometimes they resemble the waves of the sea ; again they appear like mirrors of brilliant glass. Here a thousand spires glitter in the sunshine ; sometimes they assume the appearance of ruins fallen and crushed ; and again vast pyramids and obelisks are presented to the astonished beholder.

These glaciers are of essential service in furnishing to the adjacent regions, slowly and in almost a regular manner, waters, which without this congelation would be precipitated with impetuosity from the heights of the mountains, so as to overflow and devastate the countries which they now fertilize.

7. *Mineral Springs.* The water of springs always contains air and some saline ingredients. In good drinkable water the air is usually equal to about one twenty-fifth of its volume, and the saline contents form about one 6000th of its weight. Such springs are called *soft*, and answer well for domestic purposes ; when the solid ingredients exceed this quantity, the water is *hard*, and is less fitted for cooking, dissolving soap, &c. When these substances are in

such quantities as to produce very perceptible effects upon the animal system, or to show decided chemical powers in other ways, the spring becomes a *mineral water*; if the temperature of the water is above the ordinary temperature, then we have *thermal* or warm springs. Mineral waters may be, 1. acidulous; 2. chalybeate; 3. sulphureous; 4. saline. The first generally owe their sparkling appearance and acid qualities to fixed air or carbonic acid. Such are the waters of Tunbridge, in England, of Pyrmont, Spa, and Selters, in Europe, and others. The chalybeates generally contain several grains of oxide of iron, mixed with other salts, of this class are the Harrowgate springs, in England, the celebrated springs of Saratoga and Ballston, in New York, and many others in this country. Sulphureous waters owe their qualities to the presence of sulphuretted hydrogen, and some salts in which sulphuric acid is combined (sulphates); such are the fine group of sulphur springs in Western Virginia, and the waters of Aix-la-Chapelle, in Europe. Saline waters contain large quantities of different salts, such as common salt, Epsom, Glauber's salt, &c. Those which have but a small portion of the medicinal salts, are used for the manufacture of common salt, as in New York, Western Virginia, Pennsylvania, and all over the Western States. The source of the peculiar impregnation of these various waters, is the mineral beds through which they flow. The temperature of thermal waters varies from 50° or 60° to boiling point; the Hot Springs of Virginia are about 106°, those of Arkansas nearly 200°, and the Geysers of Iceland 212°, or at boiling point. Thermal waters are sometimes pure, and sometimes contain mineral ingredients. In some cases carburetted or sulphuretted hydrogen issues from the ground in great quantities, forming *blowing* or *burning springs*. The village of Fredonia, in New York, is lighted by natural gas, supplied in this manner.

8. *Rivers*. Rivers are natural drains, which convey to the sea that portion of the waters falling upon the earth, which does not pass off by evaporation, or go to nourish organic bodies. The sources of rivers are generally springs, or small streams, fed by the melting of snow and ice upon the mountains, or by rains.

9. *Basin*. The district from which the waters of a river are derived, is called its *basin*. The basin is bounded by highlands, which are sometimes mountainous, and which divide it from other basins. The water descending from the water-shed or dividing ridge collects into brooks, the brooks unite into rivulets; the rivulets united form the main trunk or river, which conveys the waters of the whole to the sea. All these descend over inclined planes, so that the lowest point of each brook is that where it joins the rivulet; the lowest point of the rivulet that where it unites with the main stream; and the lowest point in the whole system that where the river falls into the sea. These basins form important natural divisions. Those streams which empty themselves into larger streams are called the *tributaries* of the latter.

The following table shows the length of some of the principal rivers.

Principal Rivers of North America.

<i>Names.</i>	<i>Length.</i>	<i>Names.</i>	<i>Length.</i>	<i>Names.</i>	<i>Length.</i>	<i>Names.</i>	<i>Length.</i>
Missouri	4,400	Del Norte	2,000	Ohio	1,350	Savannah	600
Mississippi	3,000	Nelson	1,500	Kansas	1,200	Potomac	550
Arkansas	2,100	Columbia	1,500	White River	1,200	Connecticut	410
St. Lawrence	2,000	Red River	1,500	Tennessee	1,100	Hudson	394
Mackenzie	2,000	Platte	1,500	Alabama	650	Delaware	300

Principal Rivers in South America.

<i>Names.</i>	<i>Length.</i>	<i>Names.</i>	<i>Length.</i>	<i>Names.</i>	<i>Length.</i>	<i>Names.</i>	<i>Length.</i>
Maranon	4,500	Orinoco	1,800	St. Francisco	1,500	Xingu	1,400
La Plata	3,000	Tocantins	1,800	Paraguay	1,400	Topajoz	1,300
Madeira	2,500	Ucayale	1,600				

Principal Rivers in Europe.

<i>Names.</i>	<i>Length.</i>	<i>Names.</i>	<i>Length.</i>	<i>Names.</i>	<i>Length.</i>	<i>Names.</i>	<i>Length.</i>
Volga	2,040	Rhine	670	Tagus	580	Gudiana	490
Danube	1,710	Elbe	570	Dwina	480	Rhone	390
Don	1,080	Loire	540	Oder	450	Pruth	390
Dnieper	1,050	Vistula	500	Niemen	450	Po	375
Kenai	760	Dniester	480	Dwina, or Duna	420	Ebro	370

Principal Rivers of Africa.

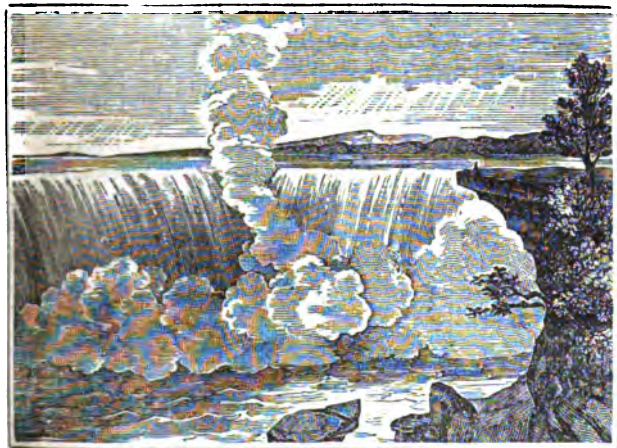
Names.	Length.	Names.	Length.	Names.	Length.	Names.	Length.
Nile	2,687	Senegal	950	Orange	900	Gambia	700
Niger	Unknown						

Principal Rivers of Asia.

Names.	Length.	Names.	Length.	Names.	Length.	Names.	Length.
Yangtze Kian	3,300	Ganges	2,040	Hoang Ho	2,900	Tigris	1,000
Lena	2,470	Burrampooter	2,040	Meinam	1,600	Sihon	900
Amour	2,360	Irrawaddy	2,040	Irtish	1,600	Godavery	850
Obi	2,260	Cambodia	2,000	Indus	1,450	Kistna	800
Yenisei	2,150	Euphrates	1,820	Gihon	1,100	Nerbuddah	750

10. *Bed, Banks, &c.* The cavity or channel, in which a river flows is called its *bed*, and generally has the appearance of having been cut or worn by the current itself. The borders of the channel are called the *banks* of the river; that bank which is to the right of a person descending the stream, or facing the mouth of the river, is called the *right* bank, and the opposite is the *left* bank. The *mouth* of a river is the point, where it enters into a lake, sea, or another river; in the latter case the point of junction of the two streams is called the *confluence*.

11. *Estuary, Delta.* Many of the largest rivers mingle with the sea by means of a single outlet, in which case they often spread into wide expanses, called *estuaries* or *friths*. Others before their termination divide into several branches, embracing a triangular space of land called a *delta*, from its resemblance to the shape of the fourth letter of the Greek alphabet (Δ).

*Falls of Niagara.*

12. *Falls, Rapids, Bore.* When the bed of a river suddenly changes its level, so that the water plunges down a considerable descent, it forms a *fall*, *cascade*, or *cataract*. When its current is accelerated by a considerable inclination in its bed, or broken by a series of descents of little height, it forms *rapids*. Some streams rush with great force into the sea, carrying a large mass of water, which encounters the ocean tide, advancing in the opposite direction; the collision of the opposing currents produces a tremendous shock; this phenomenon is called a *bore*.

13. *Bars.* The opposition which takes place between the tide and the currents of rivers causes, in many instances, collections of mud or sand at their mouths, which are called *bars*, on account of the obstruction which they offer to navigation.

14. *Periodical Floods.* All rivers are more or less subject to occasional or periodical floods or inundations. Within the tropics, these floods are produced by the annual rains, and occur during the summer months, but beyond the tropics, they occur at various seasons, and in high latitudes chiefly in the spring, when the snow and ice melt. In some cases where the river banks are high, the water merely rises in the bed of the river; but where the banks are but little above the level of the river-bed, the waters overflow them, forming vast lake-like expanses.

15. *Alluvial Deposits.* Rivers which pass through low and level tracts in their annual inundations, deposit the earth, sand, and gravel brought down by their waters, on their banks, and raise them gradually above the surrounding country, while a part of the matter carried to the sea extends the coast, or forms sand or mud banks, which rise by degrees above the water. It is thus that the Ganges, Po, Nile, Mississippi, and many other rivers flow on the top of ridges, behind which are cultivated and inhabited districts, lying lower than the level of the

waters. During floods, the elevated sides are sometimes burst through, and the waters which escape stagnate in temporary lakes, or return into the main stream lower down, or travel to the sea by a separate mouth

VI. CLIMATE, WINDS, &c.

1. *Climate.* The term climate expresses the particular combination of temperature and moisture which characterizes the atmosphere of any particular place. We may distinguish in general six different combinations or climates, which, however, are infinitely diversified in degree; thus we have warm and moist, warm and dry, temperate and moist, temperate and dry, cold and moist, and cold and dry climates.

2. *Causes of Climate.* There are nine circumstances which determine the character of climate: 1. The sun's action upon the atmosphere; 2. the temperature of the earth; 3. the elevation of the ground above the level of the ocean; 4. the general slope of the ground and its particular exposure; 5. the position and direction of mountains; 6. the neighborhood and relative situation of great bodies of water; 7. the nature of the soil; 8. the degree of cultivation and density of population; and 9 the prevailing winds.

3. *Modifications of Climate.* The whole of America, north of latitude 55° , may be considered a frozen region. In Greenland, and around Hudson's Bay, brandy freezes during the winter. The ice and snow accumulate on the land and water, and cover a great part of the country throughout the year. The winter begins in August and continues for 9 months. In summer the heat is as great as in New England. It continues, however, for too short a period to bring grain to maturity, and the cultivation of the soil is very little practised. Vegetation is too scanty to supply the inhabitants with any considerable part of their food; they therefore live chiefly on seals, and other productions of the sea.



Icebergs of the Polar regions

America is still severe. In winter, the cold is intense; and the snow, which begins to fall in November, remains till May. The summer advances with such rapidity, that the season of spring is scarcely known. In June the fields and forests are covered with luxuriant verdure. Grass is abundant, and in some parts grain is cultivated with success.

The temperate portions of North America may be considered as extending from 45° to 37° north latitude. These regions are prolific in grass, grain, and various kinds of fruit, as apples, pears, peaches, &c. From 37° north to the latitude of 40° south, the climate is hot, and the products are tobacco, indigo, cotton, rice, and various fruits, and plants called tropical, as oranges, lemons, figs, pine apples, sugar cane, coffee, &c. Beyond latitude 40° south, the climate again becomes cold, and at Terra del Fuego, it is severe. At the Georgian Isles in latitude 54° south, the climate appears to be frigid.

It seems, therefore, that the temperature in general becomes cold or warm as we approach or recede from the equator. Here, beneath a vertical sun, reigns perpetual summer, and nature puts on a magnificent array of vegetation. As if enchanted by these regions, birds of beautiful plumage are seen in flocks amid the ever-verdant groves; monkeys are sporting on the trees, and lurking amid marshes and thickets, are Jaguars, Cougars, and the Jacumana. As we leave these countries and proceed to the north or south, there is a gradual change; not only does vegetation assume a less and less exuberant character, but the trees and plants are exchanged for others. The orange gives place to the peach and vine; these disappear, and the hardier fruits, such as apples and pears, are suspended from the trees. These disappear again, and forests of dark pine cover the land with gloom. These dwindle by degrees, until only here and there a stunted birch, or willow, the hardiest of trees, is found to endure the inhospitable climate.

But while the climate of a country thus chiefly depends upon its nearness to the equator

there are other circumstances which modify or change the climate of particular places. Islands and coasts feel the influence of the sea air, which is not only moist, but is neither very hot nor very cold : it therefore softens the severity of winter, and abates the heat of summer. Consequently, places exposed to its influence are rendered more temperate.

Great accumulations of ice and snow materially affect climate. The great masses of snow and ice in the regions of Greenland impart their chilling influence to the winds, which visit us from the north, and constitute one of the causes of the greater coldness of our climate, than that of other countries in the same latitude. These cold winds, mingled with the sea breezes, which come from the Atlantic, give that harsh and chilling quality so remarkable in the easterly winds of New England.

Mountains which shelter a country from cold winds, render the climate warmer. In all parts of our country, the southern declivities of mountains, and places lying south of them, sheltered from the north winds, are well known to be much warmer. So great is the difference observed in such places, that in some cases plants, which would flourish on the southern side of a mountain, would perish on the northern.

Elevation above the level of the sea is an important circumstance in climate. The city of Mexico, which according to its latitude should be excessively hot, being elevated 7000 feet above the level of the sea, enjoys a climate of perpetual spring. Quito, which lies under the equator, has a similar climate. Within sight of this city, at an elevation of 15 or 16,000 feet, the tops of the mountains are so cold as to be covered with never changing masses of snow and ice. At the distance of a few miles, the inhabitants of Guayaquil, living on a low and level margin of the sea, experience an intense and sickly degree of heat.

Thus we have illustrated, in referring to the climate of America, most of the causes which form or modify climate generally. It may be here added, that man exercises a slow but powerful influence upon the climate of those countries, which become the subjects of his labor. By the levelling of forests and the draining of marshes, the sun is let in upon the soil, and the climate is rendered warmer, drier, and more salubrious. Such is the powerful influence of this cause alone, that our own winters are much shorter, the quantity of snow that falls is considerably smaller, and the cold far less intense than when our forefathers first settled the country. Some parts of the western country, in the United States, once esteemed exceedingly unhealthy, since the clearing up of the forests, have become remarkable for salubrity.

The climate of Europe is affected by various circumstances, rendering some parts more temperate, and others colder or warmer than might be expected from their latitude. The eastern portion of Europe, including two thirds of Russia in Europe, is rendered colder by the winds which sweep over it, chilled by the immense masses of snow and ice embosomed in the mountains of central Asia. The southern parts of Europe are rendered warmer by the hot winds which visit them from the burning deserts and plains of Africa. The extremes both of heat and cold are diminished in those countries which border upon the Atlantic, by the constant action of the sea air. These appear to be the three great causes, which modify the climate of Europe, and render it so different in some parts, from what it is in others of the same latitude ; and so different from the climate of those portions of America, which lie in the same parallels.

There is another fact to be taken into consideration, in comparing the climate of the Atlantic part of Europe with that of the Atlantic part of North America. In Greenland, and the adjacent regions, there are immense masses of snow and ice, which accumulate from year to year, or are broken up, in the form of icebergs, sometimes reaching the tropics before they are melted. On the contrary, on the borders of Europe, such accumulations do not take place. The gulfs of Norway are almost always open, while the coast of Greenland, exactly opposite, is frequently rendered inaccessible, from fixed or floating barriers of ice.

These considerations will be sufficient to account for most of the contrasts, which we observe between our own climate, and that of the Atlantic parts of Europe. The climate of England, being surrounded by the sea, is rendered by the sea air much more temperate. The winters in that country are less extreme, than those of the southern parts of New England. Newfoundland, although surrounded by the sea, and further south than England, swept by the winds, which come from the icy regions of the north and the adjacent countries, experiences a winter so intense as almost to render it uninhabitable. Spain, Italy, and Turkey in Europe, illustrate the influence of the warm winds of Africa. Situated in the latitude of Massachusetts and New York, they produce oranges, lemons, figs, and grapes, which in our country are the products

of regions at least 12 degrees further south. The difference of the climate between the eastern and western parts of Europe in the same latitude, is shown by the fact, that at Moscow, which is in the latitude of Edinburgh, the winter is so inclement, as to render every precaution necessary to guard against it, while at the latter place it is not more severe than at Boston.

4. *Seasons of the Torrid Zone.* There are only two seasons in the torrid zone; the dry and the rainy or wet. The latter prevails in the tropical regions over which the sun is vertical, and is succeeded by the dry season, when the sun retires to the other side of the equator. The rains are produced by the powerful action of a vertical sun, rapidly accumulating vapors by evaporation, which then descend in rains; this arrangement is wisely adapted to afford a shelter from the perpendicular rays of the sun. In some regions there are two rainy seasons, one of which is much shorter than the other. Nothing equals the majestic beauty of the summer in the torrid zone. The sun rises vertically; it traverses rapidly the red clouds of the east, and fills the heavens with a light, whose brightness is unobscured by a single shade. The moon shines here with a more brilliant lustre. Venus blazes with purer and more vivid rays, and the milky way glitters with augmented brightness. To all this we may add the serenity of the air, the luxuriance of vegetation, and the gigantic forms of plants and animals; all nature more grand and more animated, at the same time, that the seasons are more constant and unvarying.

5. *Seasons of the Temperate Zones.* The four seasons which we distinguish in this country, are known only in the temperate zones, which alone are blessed with the varied charms of spring and autumn, the tempered heats of summer, and the salutary rigors of winter. In the part of the temperate zone bordering on the tropics, the climate resembles that of the intertropical regions; and it is between 40° and 60° of latitude, that the succession of seasons is most regular and perceptible.

6. *Seasons of the Frigid Zones.* Beyond the 60th degree of latitude only two seasons take place; a long and severe winter is there suddenly succeeded by insupportable heats. The rays of the sun, notwithstanding the obliquity of their direction, produce powerful effects, because the great length of the days favors the accumulation of heat; in three days the snow is dissolved, and flowers at once begin to blow.

7. *Winds.* Wind is a current of air moving in some particular direction; the velocity and force of winds are various. The following table shows the degrees of velocity of different winds.

<i>Velocity.</i> — 4 or 5 miles an hour.	<i>Name of the Wind.</i> —
10 to 15	Gentle wind,
30 to 35	Brisk Gale,
50	High wind,
80 to 100	Storm,
	Hurricane.

The utility of winds is very great; they purify the atmosphere, and dissipate the miasmata exhaled from marshes and stagnant waters. They raise and transport the clouds destined to fertilize the earth. Millions of seeds, furnished with little pinions, are scattered by them far and wide, thus extending the empire of vegetation. They propel a vast deal of machinery, and transport ships from pole to pole on the great highway of nations.

8. *Permanent, Periodical, and Variable winds.* Winds may be divided into three classes; permanent winds, or those which blow constantly in the same direction; periodical winds, or those which blow in one direction only a certain part of the year, and variable winds, which are constantly changing their direction.

9. *Trade-winds.* The permanent winds blowing constantly between, and a few degrees beyond the tropics, from east to west, are called *trade-winds*. They prevail in the Pacific, Atlantic, and parts of the Indian ocean, to about 30° each side of the equator, being on the north a little from the northeast, and on the south from the southeast. In sailing, therefore, from the Canaries to Cumana, or from Acapulco to the Philippines, the winds blow so steadily, that it is hardly necessary to touch the sails.

10. *Monsoons.* In the Indian ocean to the north of 10° S., and in the seas around Malaysia, there prevail periodical winds called *monsoons*, which blow half the year from one quarter, and the other half from the opposite direction; at the time of their shifting or *breaking up*, variable winds and violent storms prevail. On the north of the equator a southwest monsoon blows from April to October, and during the rest of the year a northeast monsoon; on the south of the equator a southeast wind prevails from April to October, and a northwest wind the other half of the year.

11. *Land and Sea Breezes.* There is another kind of periodical winds, common on islands and coasts in tropical countries. During the day, when the air over the land is heated by the sun, a cool breeze sets in from the sea; this blows from about 10 A. M. to 6 P. M. At night, on the contrary, a land-breeze prevails, that is, the wind sets off from the land till about 8 A. M., when it dies away.

12. *Hurricanes, Whirlwinds, Waterspouts, &c.*

Hurricanes are violent storms of wind, blowing with great fury, often from opposite points of the compass, and causing dreadful devastations. They are rare beyond the tropics. Whirlwinds are sometimes caused by two winds meeting, each from different directions, and then turning rapidly round upon a centre; and sometimes by the form of mountains, which occasions gusts of wind to descend with a spiral or whirling motion. Waterspouts which are met with at sea, and are dangerous to ships, have been supposed to be formed by the raising up of water from the sea by whirlwinds. This opinion, however, seems to be doubtful; for according to some observers, the water



Waterspout.

discharged on the bursting of a waterspout is always fresh, and therefore must have passed into the air in the form of vapor. The *simoom* of the desert of Sahara, the *samiel* of the Arabian deserts, the *chamseen* of Egypt, and the *karmattan* of Guinea, the *solano* of Spain, the *sirocco* of Italy, and the northwest wind of New South Wales, are noxious, hot winds, some of which merely produce languor, while others, if admitted into the lungs, cause suffocation.

13. *Clouds.* Every part of the land and water is constantly imparting to the atmosphere portions of its substance, in the form of vapor. This is condensed by cold, and formed into mists and clouds. In ascending to the summits of high mountains, the traveller sometimes passes through a zone of clouds, and beholds the extensive vapors of which it is composed stretched under his feet, like a vast plain covered with snow. He will, however, discover other clouds far above the tops of the loftiest peaks. There is no part of nature which more adorns the universe than the clouds. The beauty of their various tints, the variety of their forms, the sublimity of their masses, the grandeur of their movements, are all calculated to affect the imagination, and direct the attention to their great Author.

The utility of the clouds is no less obvious than their beauty. They scatter over the land the dew, rain, snow, and hail; all of which contribute to refresh and fertilize the earth. We observe all nature to languish, when the clouds retain their stores too long; plants fade and droop; animals feel their strength failing them; man himself, breathing nothing but dust, can with difficulty procure shelter from the sultry heat, by which his frame is parched and overpowered. No sooner has the water fallen from the clouds, than all living things begin to revive, the fields resume their green attire, the flowers their lively tints, animals the sportive freedom of their motions, and the elements of the air their healthful equilibrium.

The association of certain forms of clouds with the state of the weather has long been observed, and meteorologists have divided them into seven species: 1. The *cirrus*, resembling a lock of hair or a feather; it is high and indicates a breeze; 2. The *cumulus*, a dense cloud nearer the earth, the prognostic of settled weather; 3. The *stratus*, a low, continuous, level sheet of cloud, indicative of serene weather; 4. The *cirro-cumulus* consists of dense rounded masses, at different heights, also a sign of fine weather; 5. The *cirro-stratus* is long and narrow, but changeable, often high, but descends to the earth as a soaking dense mist; when stationary it indicates rain or snow; 6. The *cumulo-stratus*, in which the cumulus is mixed with the cirro-stratus or cirro-cumulus; the thunder-cloud is of this species; 7. The *nimbus* is a shower seen in profile; the thunder-cloud, on discharging its electricity, generally passes into the nimbus.

*Fata Morgana.*

apparently approaching the shores of their island. But the most celebrated example of mirage is frequently exhibited in the straits of Messina. The inhabitants, standing on the Italian side, perceive images of palaces, embattled ramparts, houses, and ships, and all the varied objects of towns and landscapes, in the air. This appearance is regarded by the people as the work of fairies, and is called *Fata Morgana*.

*Aurora Borealis, in Lapland.*

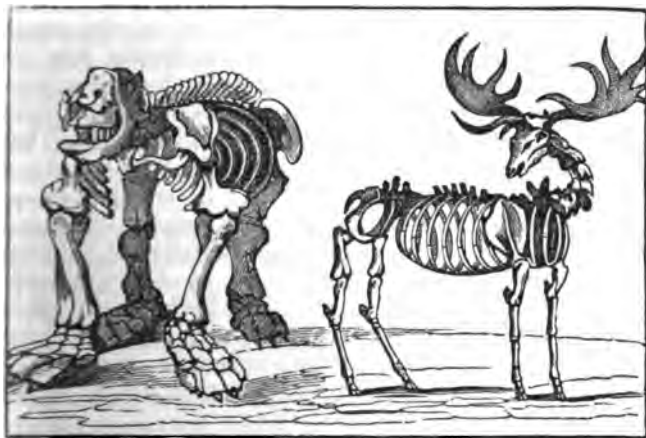
14. *Mirage*. The mirage, or appearance of objects which are not actually in the horizon, or which exist there in a different situation, is one of the most remarkable of optical illusions. At sea, rocks and sands concealed under the water, appear as if they were raised above the surface. The Swedish sailors long searched for a pretended magic island, which from time to time could be descried between the isle of Aland and the coast of Upland. It proved to be a rock, the image of which was presented in the air by the mirage. At one time the English saw with terror the coast of Calais and Bologne, in France,

15. *Aurora Borealis*. This phenomenon is commonly called the northern lights; it is frequently to be seen in New England, and generally in the north. It usually commences two or three hours after sunset, and consists of a whitish light, sometimes appearing and disappearing, and occasionally flashing nearly up to the zenith. Previous to the war of the Revolution, these lights assumed a reddish hue, and were imagined to represent, in their bloody outlines, the marching of armies and the turmoil of battle. In more northern regions they offer a more brilliant display than in our country. Various explanations are given of these remarkable phenomena; but there is no established theory on the subject.

VII. STRUCTURE OF THE EARTH. MINERALS.

1. *Arrangement of the Materials*. Persons unaccustomed to examine the structure of the crust of the earth, are apt to imagine that mineral masses present a confused heap of matter, without any particular order or arrangement. But wherever water-courses, artificial excavations, or precipices, expose the structure, we find striking proofs of the agency of causes that must have acted with great uniformity over vast portions of the surface, and that have produced a general resemblance between the structure of widely distant countries. Much of the materials is arranged in beds, of different extent and thickness, but indicating the operation of one common agent. Such beds are termed *strata*, and the general fact is expressed by the term *stratification*. These strata sometimes consist of loose or slightly consolidated masses of clay or sand, and sometimes of hard, stony bodies, which are easily split in the direction of the strata. The schists or slates are an example. Wherever natural or artificial sections lay open the earth's crust to a sufficient depth, we generally find the strata resting on a different kind of rock, which has no marks of a stratified structure. Hence the distribution of rocks into two great divisions, the stratified and the *unstratified*; examples of the latter are granite, quartz, &c. All of the unstratified and some of the stratified rocks have a granular or crystalline structure, which indicate that they have formerly been melted by the action of fire; while the regular

distribution into layers or strata, shows that the masses so arranged have been formed by aqueous deposits, or the gradual throwing down of earthy particles from water. When the stratified rocks are crystalline, we are led to infer that they have been, at least partially, melted by fire, since they were deposited by the waters in their existing order. All these processes may still be seen going on at the mouths of rivers, around springs, and in volcanic regions, but on a smaller scale than in former ages of the world.

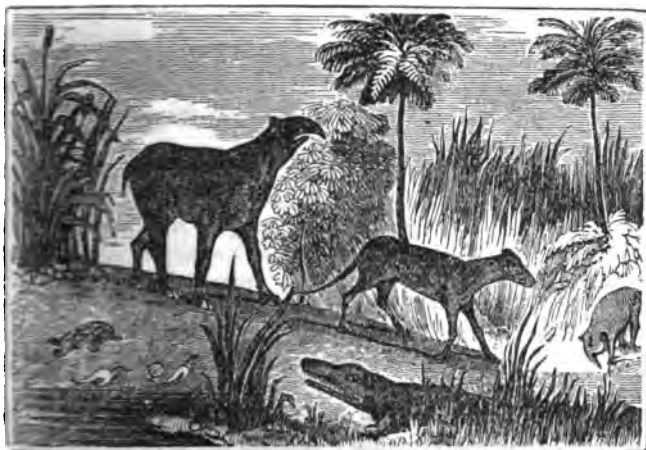


Skeleton of Megatherium.

Skeleton of Fossil Elk.



Plesiosaurus, Ichthyosaurus, Pterodactylus, Fossil Plants, &c.



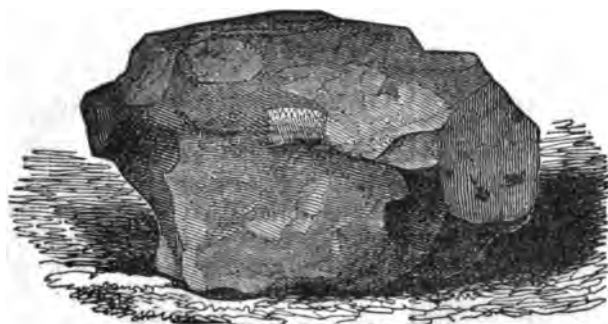
Fossil Tapir, Lophiodon, Dog, Crocodile, &c.

2. Organic Remains. Almost all the stratified rocks contain the remains of organic beings, animal or vegetable, or both, and it is in these relics of the past, that the geologist reads some portions, at least, of the former history of the earth, in periods long anterior to tradition, or even the existence of man on this globe. Plants, shells, and corallines, were first noticed as entering into the composition of rocks, and next the remains of fishes and of other vertebrated animals, were distinctly recognised. These relics are sometimes of marine and sometimes of fresh-water origin, and sometimes are the productions of the land. The rocks, in which they are contained, and which are now often at great depths beneath the surface, — covered by a numerous series of strata, several thousand feet in thickness, — once formed the surface of the earth's crust; the lower rocks in the series will generally be found to contain marine remains; the stratum above will, perhaps, contain fresh-water shells; above this we shall perhaps find plants or the remains of huge saurians or lizards, indicating vast swamps or marshes; higher up we shall meet with quadrupeds which occupied dry land; in this way we may show that the spot in which these discoveries are made, has been successively the bottom of the sea, the bottom of a lake or river, a marsh or swamp, high and dry land. Sometimes these remains alternate with each other, so that, for instance, the layers will present marine remains, then fresh water, then marine again, then land, then marine or fresh water, and so on; proving that the surface has been sometimes raised and sometimes depressed, so as to emerge from the ocean, become the habitation of other creatures, and again be sub

merged beneath the waters. In the lower strata of the series it is to be observed, that whole genera and species of animals are found which do not now exist in the known world, but as we rise in the series, we find some genera, and at last some species, identical with those now in existence. Yet even these show great changes to have taken place; for it is common to find the remains of tropical plants and animals beneath the surface of countries in which, on account of the coldness of the climate, they could not now live.

3. *Age of Rocks.* The stratified rocks having been deposited from water, it is obvious that the lowest in the series must have been first deposited, or in other words are the oldest formations, and that the upper beds are the more recent. No such chronological data are afforded by the unstratified rocks, though their relations to stratified materials afford just inferences respecting their true era. Thus if the latter are wholly below all the strata, we infer that they of course existed before any of the stratified rocks were deposited upon them; but if they form lines penetrating some of the strata, and overlying them, then the latter had assumed their present condition before the melted mass was poured into its actual position. Such lines of crystalline rock running through the stratified rocks, are called *veins* or *dikes*, and are of common occurrence. Superposition of strata is, then, the chief indication of the relative age of rocks; but as certain organic fossils have been found to be peculiar to certain formations, it is often easy to identify particular rock-formations by their included organized remains, and when the order of superposition cannot be readily ascertained, the nature of these remains will serve to determine the geological age of the rocks. It is on such a basis that the received geological classification of strata has been established; and geologists usually divide them into three great classes, the primary, the secondary, and the tertiary.

4. *Primary Rocks.* The *primary* strata are such as do not include any organic bodies.



Primitive Rocks.

They are the lowest in the series of strata, and are found to repose on crystalline unstratified rocks, generally on granite, which, as far as the crust has been penetrated, has the appearance of being the general fundamental rock. The name *primitive* was originally given to these rocks, because they were supposed to have been deposited before the creation of organized bodies; but this cannot be proved, since the cause which crystallized them, or their fusion, may have occasioned the disappearance of organic remains.

5. *Secondary Rocks.* The *secondary* strata are generally less crystalline in structure, and in their lower beds the organic remains are few, being chiefly marine productions; but these increase in number and variety in the upper beds, which end with the chalk formation. The organized bodies are chiefly marine productions, as zoophytes, crustacea, shells, and fishes; reptiles, amphibious animals, and plants, are also found in secondary strata. During the deposition of the secondary strata the land appears to have been gradually rising above the level of the waters which once covered it; and during the same period there are marks of more sudden changes or disturbances of the strata, which appear to have been owing to the forcible irruption of melted rocks from the bowels of the earth.

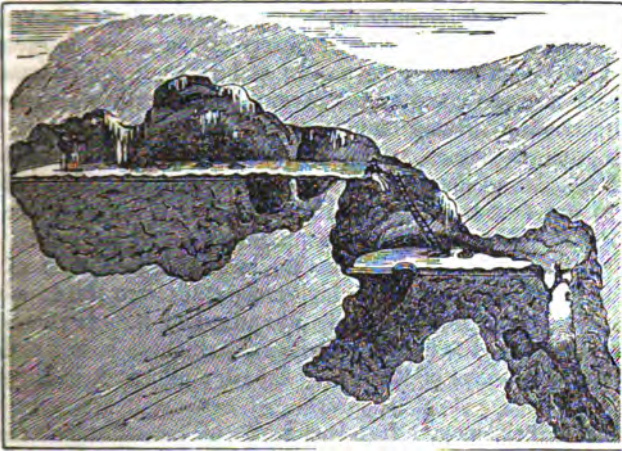
6. *Tertiary Rocks.* Above the cretaceous or highest secondary strata, another system of deposits appears, which has received the name of the *tertiary strata*. These have been in part deposited from fresh water, by which circumstance and by their organic remains they are distinguished from the secondary strata. There are, indeed, some fresh-water animals found in the latter, but these are rare, and the formations that include them, seem to have been made in the estuaries of great rivers. But decided alternations of fresh and salt water deposits are characteristic of the tertiary period. All the fossils of the secondary rocks belong to extinct species, and are distinct from those of the tertiary strata. In the latter, mammalia first appear, and there are a few species identical with those now existing.

7. *Diluvial Formation.* In many countries vast tracts are covered with a confused mass of water-worn rocks, gravel, and a mixture of other fragmentary substances, which completely

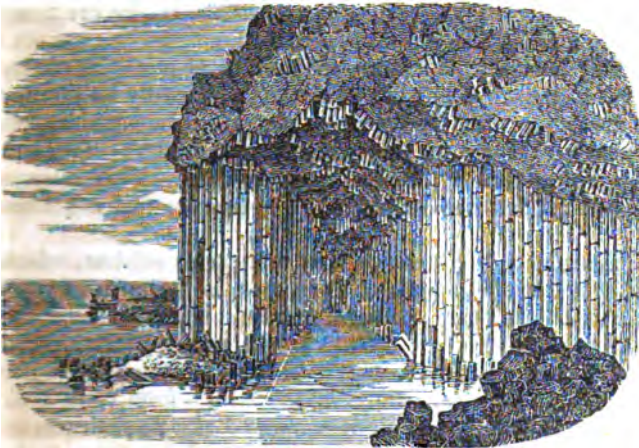
bury and hide from sight the more consolidated and regular masses above described. The rocks are rounded, their sharp edges having been evidently worn off by friction, and the earthy materials have as evidently been produced by the grinding down of the rocky fragments during the same process. Everything here bears the mark of the action of powerful floods of water, which have swept away and ground up or rounded the fragments of native rock ; as this formation is the effect of some great deluge, it is called the *diluvial formation*. Sometimes the masses which have been moved in this manner from their native beds are of great size, and it is possible to trace the direction of the diluvial current by ascertaining their original situation. By this process it is shown that such a flood has swept over the United States from northwest to southeast, scattering over the surface immense numbers of those *lost rocks* or *travelers*, as they are often called by the people, or *boulders* or *erratic blocks*, as the geologists term them, to distinguish them from rocky masses *in place*, that is, in their native beds.

8. *Caverns*. Fissures and cavities are sometimes found of great extent, forming vast caverns

in the bowels of the earth, which are either empty or filled with water. Instances of these on a great scale occur in the limestone strata of many countries, especially of Carniola and the United States. The cavern of Adelsberg, in Carniola, extends several leagues in its various branches, and contains a subterranean lake and river ; the not less remarkable Mammoth cave of Kentucky has been traced several miles, and is also in limestone. Some of these caves are brilliantly ornamented with crystals of every shape and hue ; such is Weyer's cave, in Virginia, which consists of numerous large apartments and galleries filled with stalactites, or crystalline masses resembling various natural and artificial objects. The celebrated spar cave, of the Isle of Skye, is in sandstone ; there is also one in a slaty rock in the island of Thermiæ, and the great Icelandic cave of Surtshellir is in lava. This last is nearly a mile in length, and appears to have been formed in flowing lava by the disengagement of gaseous matters, as it has all the appearance of being the consequence of an enormous air-bubble, having its roof ornamented with projections of black slag. The celebrated Columnar cave on the isle of Staffa, well known as Fingal's cave, is in trap-rock.



Section of a Cavern in Europe.



Fingal's Cave, Staffa.

9. *Minerals*. Minerals are divided into four classes ; acidiferous, earthy, inflammable, and metallic.

Of the first class, we may notice limestone, calcareous spar, or carbonate of lime, that is, lime combined with carbonic acid. It is the most abundant of any known mineral substance on the earth. It is one of the principal constituents of rocks. It is also found in its pure state in immense beds or banks ; of stratified earth it forms more than half. It is also found combined with clay, and thus constitutes the various marls. It forms vast beds, in the shape of chalk, mingled with large masses of shells.

Carbonate of lime, confusedly crystalized, forms a common species of building stone in some countries. When it possesses a finer grain, it forms marble of no great value. As it becomes harder and more refined, it is better adapted for sculpture, and is then properly called marble. White statuary marble from Carrara, in Italy, is esteemed most valuable, and the purest of any. It must be observed, that some kinds of marble are primary and others secondary. There is a fine species of clouded marble found near Middlebury, Vermont. White marble is found in Stockbridge and Pittsfield, Massachusetts, and Washington, Connecticut, and in many other States. A beautiful species, variegated with green, yellow, and black, is found at Milford, near New Haven, Connecticut. In Pennsylvania, several kinds of marble are found, some of which appear to be of primary formation. On the banks of the Potomac, a fine kind of secondary marble, called Breccia, is obtained. The superb pillars which support the dome of the Representatives' chamber in the capitol at Washington, are of this species. Variegated marble is found at Thomaston, in Maine.

Of the second class, or earthy minerals, quartz may be mentioned as one of the most conspicuous. It is everywhere a common stone, and is frequently denominated white flint. Gravel and sand are composed of this mineral. Sometimes it is found in regular crystals, and is then called rock crystal. When transparent it is esteemed very beautiful; and is used for various ornaments. These crystals, when colored, take the name of the precious stones they resemble, and great deception is sometimes practised in making them pass for real gems.

Of this class of minerals, are also the precious stones, which are almost entirely composed of argil, or pure clay. Among the most valuable of these are the ruby, sapphire, emerald, and topaz. The finest rubies and sapphires are found in India and the island of Ceylon. The most beautiful emeralds are obtained in Peru. The most valuable topazes come from Brazil.

Feldspar, also belonging to the second class of minerals, forms the base of a multitude of rocks. The whitish particles observed in granite are feldspar, which constitutes two thirds of its substance. Extensive mountains are in some instances solely composed of it. It sometimes occurs in large masses, beautifully colored, and is used for various ornaments. It is found more frequently in the mountains of Asia than in those of Europe. America affords it in large quantities.

Mica consists of thin scales of a metallic brilliancy. It forms a part of the substance of granite, and may be recognised by its sparkling surface. It is also mixed in other rocks, and constitutes a portion of almost every soil. It sometimes occurs in large plates, and is often called isinglass. It is found in Russia, Siberia, and Soongaria, in large masses, the leaves being sometimes several feet square. In Russia it is used in windows instead of glass.

Asbestos, a celebrated mineral, is chiefly found in the fissures and cavities of primitive rocks, of which it seems to be a decomposition. A detached tuft of this mineral can hardly be imagined, at first sight, not to be a bunch of fine white silk. The ancients made towels, napkins, and head-dresses of it. When these became soiled by use, they were thrown into the fire, and upon being taken out were found to be whiter than if they had been washed. This mineral abounds in Corsica, in the Uralian mountains, and in Greenland. The longest that has been found came from the Pyrenees.

Of the third class of minerals, or inflammable substances, we may first notice sulphur, which is discovered in various situations. It occurs at the mouths of volcanoes, in the form of powder, and sometimes in crystals. It is also found in veins or beds, among sulphate of lime and potter's clay. In this latter situation it is chiefly obtained. Bitumen, in a liquid state, called mineral tar or naphtha, filters through the earth and rocks, and sometimes floats on the water like oil. There are springs of it in Persia. In Parma, in Italy, it is drawn up from wells sunk in the earth for the purpose. It is called asphaltum, and gives name to Lake Asphaltites, or the Dead Sea, in Syria. In Persia, Japan, and other countries, it is used for lamps. In Auvergne, in France, glutinous bitumen covers the earth, and sticks to the feet so as to impede the traveler.

Pit coal is of two kinds, bituminous and anthracite. The former burns most freely, and is most common. Of this kind are the coal mines in England. This coal consists of bitumen united to an earthy base, and is supposed to be formed of vegetable and animal remains, long since deposited in the earth, where, by a process of nature, they have assumed their present form. Anthracite coal consists of carbon accidentally mixed with flint and iron. Of this species are the Lehigh and Schuylkill mines in Pennsylvania.

Carbon exists in nature to a great extent. It enters into the composition of a multitude of

substances, and constitutes a chief ingredient of animal and vegetable matter. Common charcoal consists almost entirely of carbon. The diamond, the most precious of all minerals, is pure carbon. It has been ascertained, by repeated experiments, that the diamond is completely combustible. This, as well as the other fine gems, is found chiefly in South America and in India. It is remarkable, that the precious stones, as well as the precious metals, are confined chiefly to equatorial regions. Amber must be regarded as a mineral, though it seems to be a resinous gum, produced by trees. It is chiefly found in the countries bordering on the southern part of the Baltic Sea. It was formerly taken by the fishermen, in nets, but is now procured by digging in the hills of sand along the coast. The largest piece ever obtained weighed $13\frac{1}{2}$ pounds, and is preserved in the royal museum of Berlin.

The fourth class of minerals comprehends the metals. Platina, the heaviest of these, and even more valuable than gold itself, is found in the gold mines of America, and in the Ural mountains. It has been obtained only in small quantities, but has been coined in Russia. Some gold is found in Norway and Sweden. The gold mines of Hungary are more productive; but all the gold mines of Europe are trifling in comparison with those of South America. These mines we shall notice elsewhere, as well as those of Mexico. Gold, in considerable quantities, is found in the Southern States. The islands of Borneo, of Celebes, and of Sumatra, situated under the equator, contain very rich mines of this metal. Nearly all the rivers of Africa bring down with them particles of it, mixed with the sand. Upon the coast of Guinea, it is said, that one person may pick up several ounces in a day. Silver is found in various forms, but most commonly mixed with arsenic, in the state of ore. There are mines in Siberia, Norway, Saxony, the Hartz Mountains, and other places in Europe; but the amount of silver obtained from them is small. The silver mines of Potosi, once the most prolific in the world, are now exhausted. Peru, and many other parts of South America, abound in silver. Mexico has produced annually more than 20,000,000 of dollars. Mercury is found in small quantities, both in America, and in Europe. This metal requires so little heat for its fusion, that it always remains in a liquid state in our climate. In the arctic regions it becomes solid; it is then almost as malleable as tin.

Lead is generally found mineralized by sulphur, forming an ore called galena, which is almost always mixed with iron, with antimony, and especially with silver. Lead is not found in abundance anywhere in the north of Europe or Asia. It exists in great quantities in Germany, France, and England. The lead mines of Missouri, Illinois, Iowa, and Wisconsin, are elsewhere described. Copper is an abundant mineral, and is found in all parts of the world. Tin abounds in Cornwall, in England. It is also found in Saxony, but scarcely ever in other parts of Europe. America and Africa produce little of it. It is found in Hindoostan, Malacca, and the islands of Sumatra and Japan. Iron is extensively distributed throughout the earth. The mountains of Norway and Sweden contain immense quantities of it. In the southern part of Sweden and in Missouri are mountains composed entirely of iron ore. The north of Asia abounds in iron. Southern Africa, all parts of the United States, and Canada, are also provided with ample stores of this useful metal.



VIII GEOGRAPHICAL DISTRIBUTION OF PLANTS.

*Tropical Vegetation.*

1. *Diffusion of Vegetation.* The geographical distribution of vegetable forms is chiefly affected by climate, including under this head not only temperature and moisture, but degree of light, and density or rarity of the air, and by soil. We find, indeed, traces of vegetation in the depths of the ocean, in dark caverns, in the hot waters of thermal springs, on the loftiest mountains, and even in the bosom of perpetual snow; but these are comparatively rare and feeble, and the full vigor and glory of vegetable life appear only where it is unfolded under favorable influences. In regard to temperature it will be found, that the distribution of heat, rather than its degree, has the greatest influence upon vegetation; the growth of plants which require a long and moderate heat, depends on the average summer temperature; that of those which require a short but great heat, on the temperature of the warmest month, and that of those which are unable to resist a considerable cold, on the temperature of the coldest month. Thus many of the fruits of southern Europe cannot be raised to advantage in some parts of the United States, because the plants are killed by the frosts, although the length and warmth of the summer are sufficient to ripen their fruits. So maize or Indian corn and tobacco are produced in some parts of America whose winters are excessively severe, because the genial heats of a short summer are more favorable to their maturity than the longer and milder summers of Europe. Some plants require much moisture, but also need the strong light and heat of a clear sun, and will not thrive in the cloudy climates, where a serene sky is almost unknown. Sandy or siliceous soils are necessary for some vegetables, and calcareous ingredients are equally essential to others.

2. *Number and Distribution of Species.* Each plant has generally a determinate climate to which it is best adapted; there are other climates, however, in which it can be raised, though less advantageously, but beyond certain limits it ceases to grow altogether. The whole number of species at present known amounts to 50,000, but it is estimated that the total number of existing species is upwards of 100,000.

The most simply organized plants, such as mosses, lichens, grasses, &c, which form the lowest order of the vegetable creation are the most widely diffused; the more perfect tribes are in general limited to particular regions, and, in some cases, as for example, the cedar of Lebanon, to a particular mountain or district.

3. *Vegetation of the Frigid Zones.* There are properly no plants which are peculiar to the frigid zone, because the mountains of the torrid zone, embracing every variety of climate between their base and summit, are capable of producing all the vegetables of the temperate and frigid regions. The number of vegetable species in the frigid zone is small; the trees are

*Various kinds of Mosses.*

few and dwarfish, and, as we advance towards the poles, finally disappear. But mosses, lichens, ferns, creeping plants, and some berry-bearing shrubs, thrive during the short summer.

4. *Vegetation of the Temperate Zones.* In the high latitudes are the pine and the fir, which retain their verdure during the rigors of winter. To these, on approaching the equator, succeed the oak, elm, beech, lime, and other forest

trees. Several fruit-trees, among which are the apple, the pear, the cherry, and the plum, grow better in the higher latitudes ; while to the regions nearer the tropics belong the olive, lemon, orange, and fig, the cedar, cypress, and cork-tree.

Between 30° and 50° is the country of the vine and the mulberry ; wheat grows in 60° , and oats and barley a few degrees further. Maize and rice are the grains more commonly cultivated in lower latitudes.

5. *Vegetation of the Torrid Zone.* The vegetation of the torrid zone, where nature supplies most abundantly moisture and heat, is the most remarkable for its luxuriance and the variety of its species. The most juicy fruits and the most powerful aromatics, the most magnificent and gigantic productions of the vegetable creation, are found in the intertropical regions. There the earth yields the sugar-cane, the coffee-tree, the palm, the bread-tree, the immense baobab, the date, the cocoa, the cinnamon, the nutmeg, the pepper, the camphor-tree, &c., with so many dye-woods and medicinal plants. At different elevations of soil, the torrid zone exhibits, in addition to its peculiar forms, all the productions of the other regions of the earth.

6. *Vegetation of Northern Hemisphere.* The northern hemisphere, with which we are best acquainted, is divided by Humboldt into 6 bands, as follows : 1st band has a mean temperature above 77° Fahr. and may be considered the natural region of palms, the banana, and the coffee-tree. It extends northward in the old continent to 32° N. lat., and in the new to $23^{\circ} 30'$. 2d band, with a mean temperature ranging between 77° and 68° , is the proper region of the citron and its varieties. In the old continent it reaches to 37° or 38° N. lat. ; in the new to 29° . 3d band, with a mean temperature from 68° to 59° , is the true region of the olive and the vine, extending to $43^{\circ} 30'$ in the old world, and in eastern Asia and the new, to 32° or 33° . 4th band, with a mean temperature from 59° to 50° , produces the vine, and in perfection the oak and wheat. In Europe it extends to $52^{\circ} 25'$, in America and eastern Asia to 40° N. lat. 5th band, with a mean temperature from 50° to 41° , is the region of the various cerealia, and of forests of *Quercus robur*. In Europe it extends to 60° N. lat., in America to about 50° . 6th band, with a mean temperature from 41° to 32° , is the native region of the pine, the birch, and the willow, in its lowest parallels, and of Alpine plants, lichens, and byssi, in the higher ; it reaches to the limits of perpetual frost, extending, in Europe, to 71° N. lat., in Asia, to the Arctic circle, and, in eastern America, to about 60° .

IX. GEOGRAPHICAL DISTRIBUTION OF ANIMALS.

1. *Animals.* The animal kingdom presents a vast and varied field, at which we can only cast a glance. Every department of nature, the earth, air, and sea, is full of animated beings : some of them seem nearly allied to vegetables and minerals. From these, we may ascend in the scale, through an almost infinite series of existences, up to man, who constitutes the highest in the animal kingdom. Among the most remarkable animals, we may mention the coral insects which are chiefly found in the equatorial regions. These creatures, so minute as scarcely to be perceived by the naked eye, exist in the sea, in such inconceivable numbers, and labor with such activity, as to construct vast beds of coral, which at length raise their tops above the water : thus immense islands are gradually built in the bosom of the ocean, by insignificant insects.

Wherever man has not drained the marshes, and cleared the forests, insects reign with resistless sway. History has recorded several examples of towns and countries rendered uninhabitable by the multitudes of bees, wasps, and gnats. Armies and whole tribes have been compelled to fly before these feeble creatures, rendered invincible by their numbers.

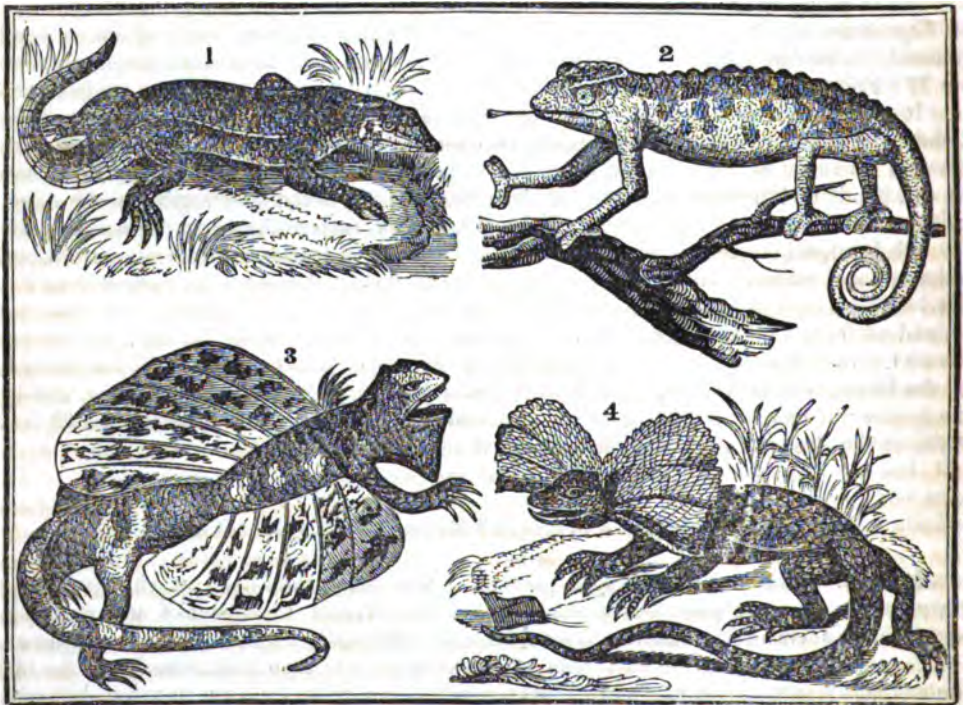
In Asia and Africa, there is a remarkable animal of the ant kind, called termites, or **White Ants**. When they find their way into houses, nothing less hard than metal or glass escapes their ravages. Their favorite food is wood, and such is the multitude of the assailants, and such the excellence of their tools, that all the timber-work of a spacious apartment is often destroyed by them in a single night. Outwardly every thing appears as if untouched, but they destroy first the inside, and conceal their operations by stopping up the apertures with a coat of clay.



Hill of Termites.

Section of hill of Termites.

Fishes, though generally confined to the sea, sometimes forsake their native element. In the West Indies, there is a kind of walking fish, which takes to the land, and throws itself along by jerks, in this way traveling considerable distances. The flying-fish skims through the air; eels traverse the meadows; and, on the coast of Coromandel, there is a kind of perch that climb palm-trees.



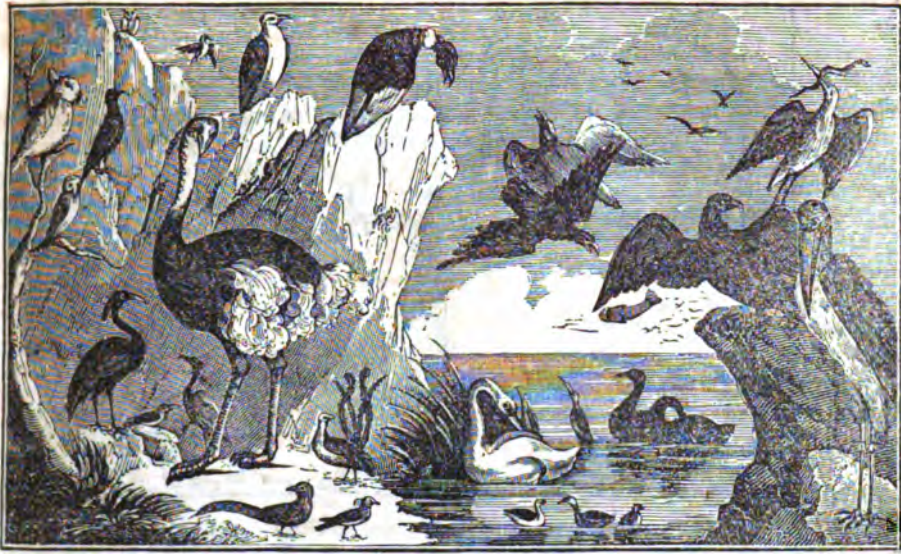
1. Great Dragon.

2. Chameleon.

3. Flying Lizard.

4. Frilled Lizard.

The alligator and crocodile, as well as other lizards, are mostly found in or near tropical countries. The largest serpents are also confined to these regions.

*Various kinds of Birds.*

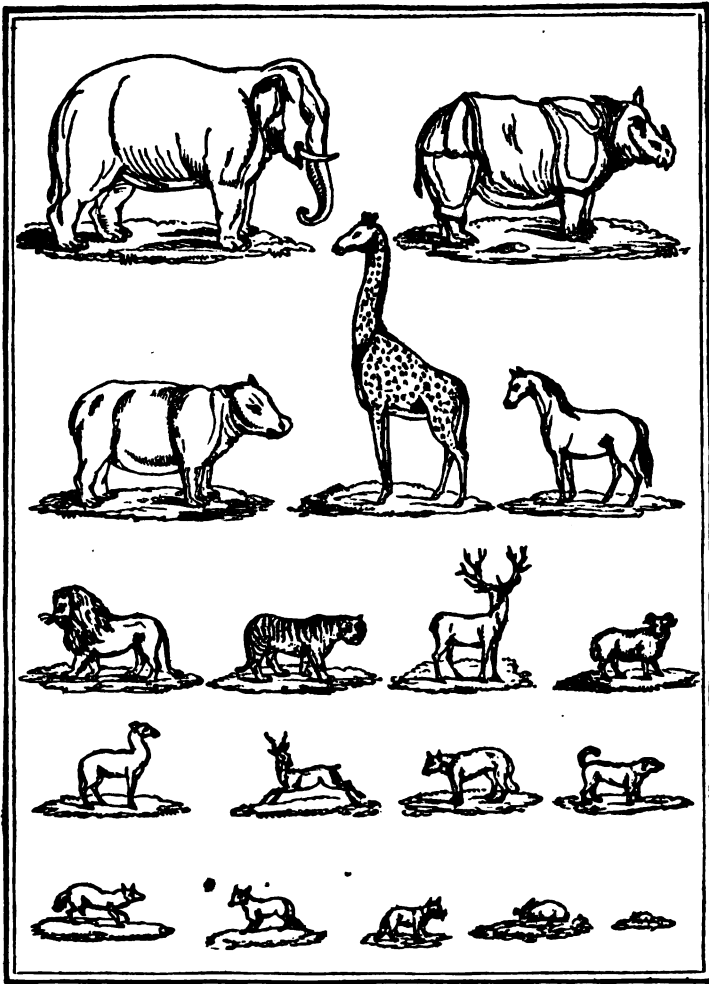
The Condor seldom forsakes the Cordilleras of Mexico, and the Andes, though he is sometimes found in the Rocky Mountains. Vultures, whose office it is to prevent contagion, by removing animal remains in hot countries, abound in tropical climates. The bird of paradise is found only in New Guinea and the adjacent regions. Parrots and paroquets are natives of warm latitudes. The ostrich is found only in Africa and Arabia. The cassowary is found only in Java and the Asiatic Islands; the emeu in New Holland. The rhea, sometimes called the ostrich, is found in the southern part of South America. It is remarkable, that nearly all the land birds of America are of different species from those of the other continent: about 80 species of water birds common to the United States, are also found in Europe.

Among the quadrupeds which are distributed nearly over the surface of the earth, we may mention the dog, cow, sheep, goat, horse, ass, pig, and cat, in a domestic state. In a wild state, the fox, bear, hare, rabbit, stag, deer, squirrel, rat, mouse, and ermine. The dog, the faithful companion of man, has followed him into every climate. In many countries, he is the only domestic animal, and supplies the place of the horse and ox. Toward the equator, as well as at the pole, he loses his voice, and his barking degenerates into a kind of growling noise.

Among quadrupeds confined to the cold parts of the northern hemisphere, we may enumerate the reindeer, musk ox, white bear, polar fox, otter, beaver, martin, and lynx. The camel with two humps, lives as far north as the 52d degree of north latitude, and seems to have been brought originally from Bactriana, or Great Bucharia, in Asia. The camel with one hump, or the dromedary, appears to have come from Arabia and Africa, and is used in those countries, and generally in the southern parts of Asia. The chamois prefers the mountains of the temperate zone. There are various kinds of antelopes, some of which remain in warm, and others in cold regions. The hyena and jackal live near the equator. Most of the quadrupeds of America are peculiar species, not found in the other continent.

Among the animals confined to tropical countries, we may notice apes, monkeys, and baboons. The giraffe, zebra, hippopotamus, and rhinoceros, belong to the warm regions of Africa. The elephants of Asia and Africa are different races. Those of Africa do not advance further north than the 20th degree of north latitude. The Asiatic elephant inhabits only India, China as far north as the 30th degree, and some of the Asiatic Islands, to which it has been transported by man. Africa has always been the most celebrated country for lions. They are found in nearly all parts of it. Those which rove in the burning plains south of the Atlas Mountains, are distinguished for strength and fierceness. The lions of Asia are inferior to those of Africa. They are also less abundant, and seem only to be found in the deserts of Arabia, in Hindostan, and perhaps in some of the Asiatic islands.

The royal tiger, which is the largest species, is confined to Hindostan, the Birman empire, and the islands of Ceylon and Sumatra. The true tiger is not found in Africa. The panther and leopard are found in Africa alone.



Comparative size of Quadrupeds.

2. Number and Distribution of Species. The number of species in the animal kingdom has been estimated at about 100,000. Each genus is generally confined to a particular region or climate, and where the same genus is found in different continents the species are different. Most of the domestic animals (the horse, cow, dog, sheep, goat, hog, and cat) thrive in nearly every variety of climate, although some of them become more or less degenerate in high latitudes. The camel and the elephant on the contrary cannot be naturalized in the colder climates.

3. Zoological Regions. The earth appears to be divided into at least eleven zoological regions or districts, of which each is the residence of a distinct set of animals ;

(1.) The Arctic region contains several tribes common to the eastern and western continents, a circumstance owing doubtless to the communication between them afforded by means of ice. (2.) The temperate regions of the eastern continent are inhabited by peculiar races, quite distinct from the kindred tribes of the (3.) corresponding zone in the American continent. The equatorial region contains four extensive tracts, widely separated from each other by seas, and each peopled by distinct races ; these are (4.) the intertropical parts of Asia ; (5.) those of Africa ; (6.) those of America ; (7.) the islands which constitute Malaysia ; and (8.) Papua and the surrounding islands. (9.) The extensive region of New Holland forms a distinct zoological province, inhabited by several very singular tribes ; and the southern extremities (10.) of America, and (11.) of Africa, separated from the northern temperate regions of their respective continents by the heats of the torrid zone, are each distinguished by peculiar races.

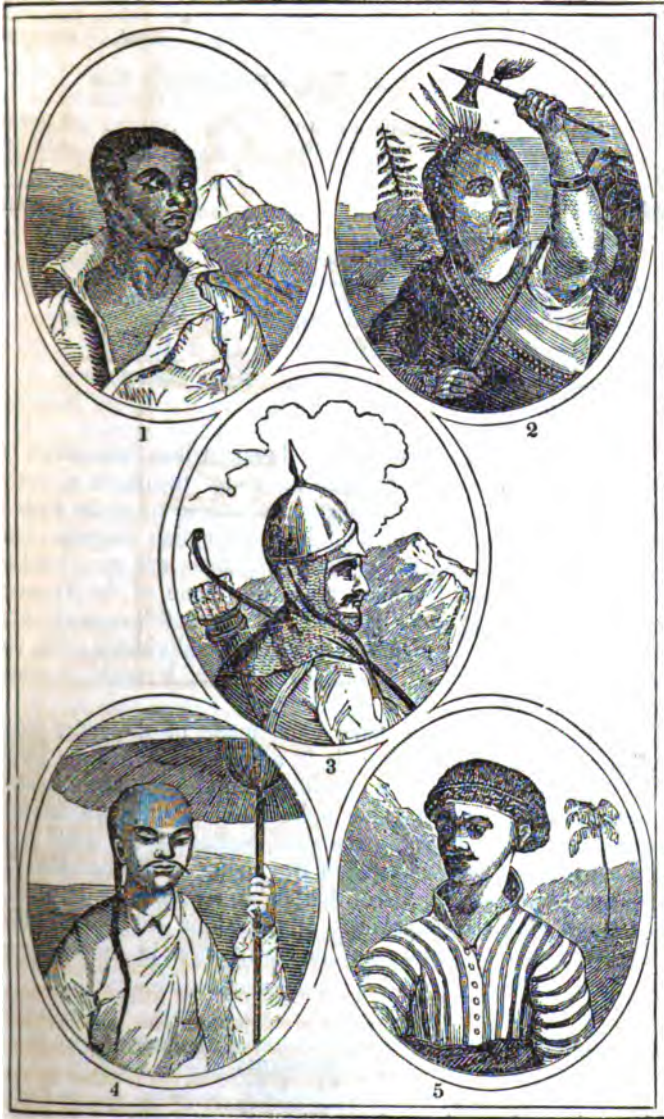
4. Animals of Islands. The animals of islands situated near continents are in general the same as those of the neighboring mainland. Small islands lying at a great distance from continents are nearly or quite destitute of quadrupeds, except such as appear to have been carried to them by man.

X. MAN.

1. Man, at birth the most helpless of animals and seemingly the most exposed to the accidents of nature, is yet the most universal and independent of the animal creation. Gifted with the divine powers of reason and speech, he is separated by a wide gulf from the mere animal nature ; yet physically considered he stands at the head of the animal kingdom. The human race forms but one species ; yet exhibits those physical diversities which constitute varieties.

2. *Varieties of the Human Race.* The physical differences which exist in the human

Types of the Five Races of Men.



1. Ethiopian. 2. American. 3. Caucasian. 4. Mongolian. 5. Malay.

family, are diversity of complexion ; difference of stature and shape ; varieties of form in the skull ; color and nature of the hair ; &c. Some naturalists, taking complexion as the basis of their division, distinguish the human race into three varieties ; 1. the white or Caucasian ; 2. the yellow or Mongolian ; and 3. the black or Ethiopian. Others adopt the form of the skull as the characteristic, and make five varieties ; 1. the Caucasian, including the European nations and some of the Western Asiatics, in which the head is almost round, the face oval, and the features not very prominent ; 2. The Mongolian, in which the head is almost square, the cheek-bones prominent, and the face broad and flattened ; 3. The Ethiopian or Negro, in which the head is narrow, the forehead convex, the nostrils wide, the jaws lengthened, the lower part of the face projecting, the nose spread and flat, and the lips thick ; 4. The American, in which the cheek-bones are prominent, the face broad, the forehead low, and the eyes deeply seated ; 5. And the Malay, in which the forehead is slightly arched, the upper jaw projecting, and the features in many respects approaching those of the second and fourth varieties.

Of these five races the Caucasian deserves to be considered the first. Not only is the countenance more beautiful, but the intellectual and moral endowments of this race are of a higher character. Whenever they have met with the other races, they have ultimately prevailed. They have excelled all others in literature and the arts, and seem to have given birth to most of the valuable institutions of human society.

The following table exhibits Hassel's enumeration of the various races of men :

I. Caucasian or White Race.		III. Malay or Dark Brown Race.	
1. Caucasians, Georgians, &c.	1,118,000	Malays, inhabiting the peninsula of Malacca, the island of Ceylon, and the islands in the Pacific Ocean,	32,800,000
2. Arabians, Moors, Jews, Abyssinians, Berbers, Armenians, &c.	54,523,000		
3. Hindoos, Persians, Afghans, Curds, &c.	143,353,000		
4. Tartar nations ; — Turks, Turcomans, Usbecks, Kirguses, &c.	17,095,000		
5. Greeks,	4,834,000		
6. Arnauts,	530,000		
7. Slavonian nations ; — Russians, Poles, Lithuanians, Croats, &c.	68,255,000		
8. Teutonic or German nations ; — Germans, English, Swedes, Dutch, Danes, Norwegians, &c.	60,604,000		
9. Roman or Latin nations ; — French, Italian, Spanish, Walloons, Wallachians,	75,829,000		
10. Celts or Caledonians, Low Bretons, Basques, &c.	10,484,000		
Total,	436,625,000		
II. Mongolian, Tawny, or Olive Race.		IV. Ethiopian, Negro, or Black Race.	
Mongul nations, Thibetians, &c.	35,842,000	African Negroes,	62,983,300
Chinese,	256,900,000	Caffres,	5,200,000
Birmans, Siamese, Anamese, &c.	33,850,000	Hottentots,	500,000
Japanese,	41,100,000	Papuans, Negroes of Australia,	950,000
Mandshure or Mantchoos,	19,320,000	Total,	69,633,300
Finns, Estonians, Laplanders, &c.	2,878,000		
Esquimaux, Samoides, Kamtschatdales, &c.	185,700		
Total,	389,375,700		
		V. American or Copper-colored Race.	
		North American Indians,	5,130,000
		South American Indians,	5,140,000
		Caribbees, &c.	17,000
		Total,	10,287,000
		Caucasians,	436,625,000
		Mongolians,	389,375,700
		Malays,	32,500,000
		Ethiopians,	69,633,300
		Americans,	10,287,000
		Total,	938,421,000

3. *Languages.* Some writers have endeavored to arrange the human tribes into classes or families, according to the relations of their languages ; comprising under the name of family those nations whose languages are closely connected in grammatical structure or in the etymology of their roots. Thus the German, Swedish, Danish, Dutch, and English languages bear a close resemblance to each other, and the nations speaking those languages are considered as kindred tribes, forming a family of nations to which has been given the name of the Teutonic family. The whole number of known languages is about 2,000. Of these fifteen are spoken or understood over a wide extent of country or by a great number of individuals : viz. the Chinese, Arabic, Turkish, Persian, Hebrew, Sanscrit, German, English, French, Spanish, Portuguese, Russian, Greek, Latin, and Malay.

4. *Population of the Globe.* Very different estimates have been made of the entire population of the globe ; a regular enumeration has been made only in a few states, and the whole number of individuals in some has been calculated from a consideration of the known number of males, or of men capable of bearing arms, or of taxable polls, &c. But these data are not possessed in regard to many countries, and there are extensive regions of the world quite unknown to us. Accordingly the most trustworthy estimates of late writers differ considerably on this subject, some calculating the number of individuals of the human race at 1,000 millions, and others at 650 or 700 millions. Supposing the population of the globe to be rather less than 750 millions, the following table exhibits an estimate of its distribution in the five great divisions of the world.

	Population.
Old World or Eastern Continent,	680,000,000
Europe,	230,000,000
Asia,	390,000,000
Africa,	60,000,000
New World or Western Continent,	40,000,000
Oceania,	20,000,000.

XI. POLITICAL INSTITUTIONS.

1. *Origin of Government.* Let us for a moment go back to the very infancy of society, and trace its progress in the formation of government. The ties which unite husband and wife,

parents and children, formed the family, or domestic circle. Those families that happen to live in the same neighborhood, after quarreling for a while, at last agree to live in harmony together; certain rules become established among them, which for a time are only considered customs. The union of these families does not form a state, but only a civil society. These small societies soon perceive, that their customs and observances require to be clearly expressed, and to be invested with the authority of laws. Men of superior capacity become the lawgivers of these hamlets or villages. As soon as the rights and duties of individuals become thus established, political society commences.

But this is a community without efficient government. They have laws; but these, in order to render them effectual, require some power to execute them. The want of this power leaves society a prey to anarchy and confusion. The experience of these evils teaches mankind to establish some system, by which laws shall not only be framed, but enforced. Such a system is government, and when once established in a community, that community becomes a kingdom, empire, or republic, according to the particular form of government that is adopted.

In the earliest state of society, the patriarch or head of a family is naturally regarded as its ruler. Thus the patriarchal form is used in the infancy of society. In time of war, the strongest and most sagacious leader naturally assumes the principal authority and becomes the chief. As society advances and the nation increases in number and wealth, the chief assumes the rank and authority of a prince or king. A prince of a warlike disposition conquers the adjacent countries, and, ruling over several nations, becomes an emperor. Convinced, by experience and observation, that monarchical forms of government are not adapted to promote the highest happiness of the people, the inhabitants of a country throw off the yoke of tyranny, and frame a system, in which the authority shall be placed in the hands of persons chosen, from time to time, by themselves, thus giving rise to a free government.

2. *Government.* The government of a state is the body or bodies of men, to which are intrusted the power of making and executing the laws, the management of the public concerns, and the defence and promotion of the general welfare.

3. *Powers and Branches of Government.* The most important powers of a government are, that of making laws, or the *legislative* power; that of interpreting or applying them to individual cases, or the *judicial* power; and that of executing them, or the *executive* power. Each of these powers is, in many states, confided to a distinct body, and the government is, therefore, divided into three independent branches, the legislature, the judiciary, and the executive.

4. *Forms of Government.* There are various forms of government differing in their character and appellation, according to the disposition of the powers of government in few or many hands, and the organization of the different branches;

(1.) A *monarchical* government is one in which the supreme power is exercised by a single individual; if the sovereign succeeds his predecessor by right of inheritance, it is a hereditary monarchy; if he is chosen by the nation, or certain privileged classes, or dignitaries, it is an elective monarchy;

(2.) When the sovereign has no law but his own will, and can dispose at pleasure of the lives, persons, and property of his subjects, the government is a *despotism*; if the sovereign unites all powers in himself, but is bound by the laws, the government is an *absolute* monarchy;

(3.) When the authority of the head of the state is restricted by the concurrent authority of the representatives of the nation or of certain privileged classes of the nation, the government is called a *limited* or *constitutional* monarchy;

(4.) A *republican* government is one in which the supreme power is in the hands of the whole body of the people, or is exercised by the principal citizens; in the former case, it is called a *democracy* or democratic republic; in the latter an *aristocracy* or aristocratic republic;

(5.) States are also differently denominated according to the title of the sovereign, without regard to the form of government; thus a monarchy is styled an empire, kingdom, duchy, principality, electorate, landgraviate, &c., according as the head of the state bears the title of emperor, king, duke, prince, elector, landgrave, &c.;

(6.) Of the popular form of government, that of the United States furnishes the leading example. This is founded upon the theory, that the true end and first object of government should be to secure the highest happiness of the people, and that the surest mode of accomplishing this end, is to intrust the government to the people. It may safely be asserted, that

no country on the earth enjoys so much freedom, so equal a distribution of rights and privileges, with so little confusion and anarchy, as our own.

The other republican governments which now exist, some of them ostensibly modeled after our own, exert by no means so happy an influence. It is obvious, that a popular government must be good or bad, according to the character of the people from whom it flows. Wise laws cannot be framed by the ignorant. Free institutions cannot proceed from slaves. An upright, virtuous, and just administration cannot be expected, where the people are vicious and debased. Let us draw this lesson from the spectacle exhibited by the other republics, that a form of government, however good, will not secure the happiness of a people, unless they are wise and virtuous, and choose the wise and virtuous to administer it.

5. *Colonies.* *Colonies* are establishments founded by states, or sometimes by individuals, in foreign countries, for commercial or benevolent purposes ; and subject to the authority of the mother country. *Factories* are trading stations established in foreign countries. Colonies founded by the transportation of convicted criminals are called *penal colonies*.

6. *Towns. Cities. Villages.* The name of town or city, strictly speaking, is not given to a collection of houses on account either of its extent or population, but in consequence of certain privileges which the place enjoys. A city has a local government, at the head of which is a mayor, or other officer, to regulate its internal affairs. It has also a court, police, and system of local laws.

A town has also some privileges, such as the right to enact certain by-laws appertaining to the place ; or laying taxes for the support of the poor, for the maintenance of schools, and for various other purposes.

Villages are generally mere collections of houses. In different countries, cities and towns have different privileges, and these terms are, of course, used with various significations.

It may be remarked, that the great cities of

Europe surpass our own in population and the splendor of their public edifices. The cities of Africa and Asia, though many of them very populous, are inferior both to those of Europe and America, in beauty, comfort, and convenience. A large proportion of the houses are of mud ; the streets are generally narrow, gloomy, and without pavements, and the houses low, with flat roofs. In Persia, and parts of India, there are some gorgeous palaces, which have a certain degree of magnificence ; but they cannot compare with those of Europe for beauty and elegance.



Washington.

XII. RELIGION.

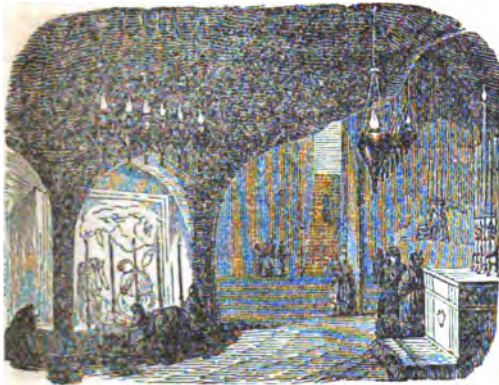
1. *Varieties of Religious Systems.* All the various religious systems, professed by different nations, may be reduced to two great classes ; the one comprising those which acknowledge the existence of a Supreme God, the Creator, Preserver, and Ruler of all things, and the other including those which do not recognise the existence of a Supreme Intelligence.

2. *Fetichism. Sabeism.* To the latter class belong the innumerable forms of superstition which prevail among ignorant and barbarous tribes. *Fetichism* is the worship of fetiches, that is, of various living or inanimate objects of nature ; the elements, rivers, fire, trees, and whatever else the credulous savage sees endowed with powers of good or evil, become the objects of gratitude or fear and worship. Different forms of fetichism prevail among the negro tribes of Africa, in Australia, Polynesia, and in some parts of Asia and America. The sacrifice of human victims often forms a part of its horrid rites. *Sabeism* is the worship of the heavenly bodies, the sun, moon, and stars ; this is an ancient form of religious faith, but has ceased to prevail very extensively.

3. *Judaism.* Judaism acknowledges no revelation, but that made to the Hebrews by Moses and the prophets. The Jews are the descendants of the ancient Hebrews, and

though dispersed over all parts of the world, they preserve their ceremonies and faith. Their sacred books are the books of the Old Testament, written originally in Hebrew ; they still expect the coming of the Messiah promised by their prophets, and observe the seventh day of the week or the Sabbath. Since their dispersion, they have ceased to offer the sacrifices prescribed by the law, and instead of their ancient priests or Levites, they have substituted Rabbins or learned men, who expound the law in the synagogues. Among the Jewish sects are the Talmudists, so called because they receive the Talmud, a collection of traditions and comments upon their sacred books ; the Caraites, who reject the absurd traditions and superstitious follies of the Talmud ; the Rechabites, who live in the oases near Mecca, and receive only the earlier books of the Old Testament ; and the Samaritans, who still offer sacrifices on Mount Gerizim.

4. *Christianity.* Although founded on Judaism, and originating among the Jews, Christianity teaches, that the Messiah, promised by the Jewish prophets, has come, and brought a new revelation to men, and that Jesus Christ is this Messiah ; the New Testament contains the revelations of this divine Teacher.



Church of the Nativity.

Among all the religions of ancient and modern times, there is none which will bear the test of a rational investigation, except Christianity. This is the only system which can pretend to a divine origin, and the only one to which mankind can look for a remedy against the various moral evils which are seen to pervade every branch of the great human family.

Christianity is divided into three portions the Greek, or Christian church, which is established by law in Russia, prevails in Greece, Hungary, and part of Turkey. The

Roman Catholic, Latin, or Western church, maintains the supremacy of the Pope, prevails in many parts of Europe, and has a considerable number of followers in North America. In some of the West India islands, in Mexico, Guatemala, and South America, it is the established religion.

The Protestants are those who protest against the Pope, and take the Bible of the Old and New Testament as their guide. They are divided into many sects, of which the principal are Lutherans, Methodists, Presbyterians, Episcopalians, Congregationalists, Baptists, Quakers, Unitarians, and Universalists. The Protestant religion, in its various forms, prevails in the United States, England, Scotland, Wales, Holland, and some other European countries.

5. *Mahometanism.* Islamism or Mahometanism was founded by Mahomet or Mohammed, an Arabian, who, admitting the divine mission of Moses and Jesus Christ, and acknowledging the sacred character of the Old and New Testaments, claimed to be charged with new revelations from God. Islamism teaches the immortality of the soul, a future judgment, &c. ; it prescribes prayer five times a day ; frequent ablutions ; fasting during the month Ramazan ; yearly alms, to the amount of the fortieth of one's personal property ; pilgrimage to Mecca, and some other rites ; the temples are called mosques, and divine service is performed in them every Friday.

The sacred book of the Mahometans is the Koran, an Arabic word signifying the Book ; it is written in Arabic. The principal Mahometan sects are the Sunnites, who acknowledge the authority of certain traditions and commentaries on the Koran ; the Shiites, including the Nosairians, Ismaelians, Druses, &c., who reject these traditions ; the Yezids, whose religious system consists of a mixture of Christianity and Mahometanism ; and the Wahabites, an Arab sect, which arose during the last century, and has endeavored to effect a reformation of Islamism by purging it of human corruptions and restoring its primitive simplicity.

6 *Brahmanism* Brahmanism recognises the existence of a supreme intelligence, Brahm,



Brahma and Vishnu.

but teaches, that he governs the world through the medium of numerous subordinate deities. The principal of these are Brahma, the Creator, who presides over the land; Vishnu, the Preserver, presiding over water; and Siva, the Destroyer, who presides over fire; these three persons are, however, but one God, and form the Trimourti or Hindoo Trinity. The Hindoos, who profess this faith, have several sacred books, called Vedas, written in Sanscrit, and forming their code of religion and philosophy; they teach the metempsychosis or transmigration of souls, and the immortality of the soul, and prescribe a great number of fasts, penances, and rites. Pilgrimages, voluntary death, self-torment, ablutions, &c. are practised, and the females of the two higher castes are required to burn themselves on the dead bodies of their husbands.

7. *Buddhism.* Buddhism resembles Brahmanism in many points; it is the prevailing religion in Thibet, Ceylon, the Birman empire, and Annam; and is professed by a portion of the people of China, Corea, and Japan. Buddhism teaches, that the universe is inhabited by several classes of existences, partly material and partly spiritual, which rise by successive transmigrations to a higher degree of being, until, at last, they attain the supreme felicity of annihilation. The highest beings are called Buddhas. They appear from time to time upon earth in a human form, to preserve the true doctrine among men; four Buddhas have appeared, the last under the name of Shigemoooni, Godama, or Fo.

8. *Nanekism.* Nanekism, or the religion of the Seiks, founded by Nanek in the fifteenth century, is a mixture of Mohammedanism and Brahmanism. The Seiks adore one God, believe in future rewards and punishments, and reject the use of images as objects of worship; they receive the Vedas and the Koran, as sacred books, but think that the Hindoos have corrupted their religious system by the use of idols.

9. *Doctrines of Confucius.* The Doctrine of the Learned, or the Religion of Confucius, is the received religion of the educated classes of China, Annam, and Japan; it uses no images, and has no priests, the ceremonies being performed by the civil magistrates. The rites, such as the worship of the heavens, stars, mountains, and rivers, genii, and souls of the departed, are esteemed merely civil institutions.

10. *Magianism.* Magianism or the Religion of Zoroaster, teaches the existence of a supreme being, Zervan or the Eternal, subordinate to whom are Ormuzd, the principle of good, and Ahriman, the principle of evil, who wage a perpetual warfare; numerous inferior deities and genii take part in the struggle, in which Ormuzd will finally prevail. The sacred books of the Magians are called the Zendavesta. The ceremonies consist chiefly in purifications, ablutions, and other rites, performed in the presence of the sacred fire, the symbol of the primeval life; hence the Magians are erroneously called fire-worshippers.

11. The number of the adherents of each religious system have been estimated as follows.

Christianity.			Judaism	4,000,000
Roman Catholics	139,000,000		Mohammedanism	96,000,000
Greek Catholics	62,000,000		Brahmanism	60,000,000
Protestants	59,000,000		Buddhism	170,000,000
			Other Religions	147,000,000
Total.	260,000,000			

USE OF GLOBES.



1 Terrestrial Globes. Though the earth be not exactly a sphere, it deviates very little from the spherical form. The polar diameter is less than the equatorial by about 1334th of the latter, while the height of the highest mountain is not equal to the 2000th part of it. Upon the largest globe that is ever constructed, these differences of the earth from an exact sphere could not be perceived; and the artificial globe, therefore, is always exactly spherical.

Through the centre of the globe let a straight wire pass, this will represent the *axis*, and the points where it cuts the surface, the north and south *poles*. A circle drawn at the distance of 90 degrees from either pole is the *equator*, and another circle drawn from any point of the equator, and at right angles to it, will be the *first meridian*.

The equator and the first meridian are divided into degrees and minutes, which are numbered, beginning at the point where the circles intersect each other. The degrees upon the first meridian are numbered on both sides of the equator, and do not exceed 90. They point out the *latitude*. The degrees upon the equator are numbered completely round the circle, and extend therefore to 360. They enable us to find out the *longitude*.

The equator and first meridian are distinguished from parallels of latitude and other meridian lines, by their being graduated. They are also sometimes denoted by double lines.

We shall now suppose, that the artificial globe exactly represents the surface of the earth, and proceed to explain the lines which are commonly drawn upon the globe, besides the equator and first meridian, and to describe the apparatus usually attached to it.

In order that we might be able to find out from the globe itself, the latitude and longitude of any place, a parallel to the equator and a meridian line would require to be drawn through that place. It is impossible that such lines could be drawn through every point on the globe, and it is unnecessary, for the brass circle placed around it, enables us to find out the latitude and longitude. In this circle, which is placed at right angles to the equator, and is therefore a meridian, the globe is suspended by the axis. One of the sides of the meridian is graduated, or divided into degrees, minutes, and seconds. The globe can be turned round its axis, while the general meridian remains stationary, so that every point of the surface of the globe must pass under some point of the meridian. To find out the latitude and longitude of any place, therefore, we have only to turn the globe round till the given place be brought to the meridian. The number of degrees, minutes, &c. under which the place lies will be its latitude, and the number intercepted upon the equator its longitude.

In addition to the general meridian, *meridians and parallels of latitude* are usually drawn upon the globe, through

every 5th or 10th degree of latitude and longitude, according to the size of the globe. These lines point out accurately the latitude or longitude of those places which are situated upon them, and give us a general idea of the situation of other places.

Besides meridians and parallels of latitude, the *celestial* is usually drawn upon globes, and also the *tropics* and *polar circles*. All these last are commonly drawn with double lines to distinguish them from other meridians and parallels of latitude.

The globe suspended in the general meridian, is placed upon a wooden frame. The upper surface of this frame divides the globe into two hemispheres, one superior, and the other inferior, and represents, therefore, the *rational horizon* of any place which is brought to the zenith point of the meridian. There are two notches for the meridian to slide in, by which different elevations of the pole may be exhibited. The horizon has commonly drawn upon it the points of the compass, the twelve signs of the zodiac, the months of the year, &c.

There is attached to the general meridian a *quadrant*, composed of a thin pliable plate of brass, answering exactly to a quadrant of the meridian. It is graduated, and has a notch, nut, and screw, by which it may be fixed to the brazen meridian in the zenith of any place. When so fixed, it turns round a pivot, and supplies the place of vertical circles. It is hence denominated a *quadrant of altitude*.

A small circle of brass is placed on the north pole. It is divided into 24 equal parts, and is termed an *hour-circle*. On the pole of the globe is fixed an *index*, which turns round the axis, and points out the hours upon the hour-circle.

There is also often attached to the globe a *compass*, which is placed upon the pediment of the frame, parallel to the horizon.

2. Problems solved by the Globe. Having thus described the globe and its apparatus, we shall now explain some of the problems that may be resolved by it.

I. *To find the latitude and longitude of any place.* We have already seen, that this is done by bringing the place to the graduated side of the general meridian; the degree of the meridian cut by the place being equal to the latitude, and the degree of the equator then under the meridian being the longitude.

II. *To find a place upon the Globe, its latitude and longitude being given.* Find the degree of longitude on the equator, and bring it to the brass meridian; then find the degree of latitude on the meridian, either north or south, and the point of the globe under that degree of latitude is the place required.

III. *To find all the places on the Globe that have the same*

latitude as a given place, suppose New York.—Turn the globe round, and all the places that pass under the same point of the meridian as the given place does, have the same latitude with it.

IV. *To find all the places that have the same longitude or hour with a given place, as New York.*—Bring the given place, New York, to the meridian, and all places then under the meridian have the same longitude.

V. *To find the difference in the time of the day at any two given places, and their difference of longitude.*—Bring one of the places to the meridian, and set the hour-index to twelve at noon, then turn the globe till the other place come to the meridian, and the index will point out the difference of time. By allowing 15 degrees to every hour, or one degree to four minutes of time, the difference of longitude will be known. The difference of longitude may also be found without the time, in the following manner:—Bring each of the places to the meridian, and mark the respective longitudes. Subtract the one number from the other, and we obtain the difference of longitude sought.

VI. *The time being known at any given place, as New York, to find what hour it is in any other part of the world.*—Bring the given place, to the meridian, and set the index to the given hour; then turn the globe till the other place come to the meridian, and the hour at which the index points will be the time sought.

VII. *To find the distance of two places on the Globe.*—If the two places be either both on the equator or both on the same meridian, the number of degrees is the distance between them, reduced into miles, at the rate of 69½ to the degree, will give the distance nearly. If the places be in any other situation, lay the quadrant of altitude over them, and the degrees intercepted upon it by the two places, and turned into miles, as above, will give their distance.

VIII. *To find the antæci, peræci, and antipodes* of any given place, suppose New York.*—Bring New York to the meridian, and find by the meridian the point upon the globe, of which the latitude is as much south as that of New York is north. The place thus arrived at will be the situation of the antæci, where the hour of the day or night is always the same as at New York, and where the seasons and lengths of the days and nights are also the same, but at opposite times of the year. New York being still under the meridian, set the hour-index to 12 at noon, or pointing towards New York, then turn the globe half round, till the index points to the opposite hour, or 12 at night. The

* *Æscii, Amphiscii, Heteroscii, and Periscii.* The inhabitants of the different regions of the earth are sometimes distinguished by the ancient geographers, according to the direction of their shadows. When the sun at mid-day is vertical to any place, the inhabitants of that place were said to be *æscii*, that is, without shadow. All the inhabitants between the tropics must be *æscii* twice a year.

The inhabitants of the torrid zone, having the sun sometimes to the north, and sometimes to the south, will project shadows directed by turns towards either pole, and they were therefore said to be *amphiscii*, that is, having both kinds of shadows.

Those who inhabit the temperate zones were called *heteroscii*, because their shadows fall in opposite directions.

Within the polar circles the inhabitants must, for a while, project shadows in all directions, and they are therefore said to be *periscii*.

Peræci and Antæci, and Antipodes. The seasons which the inhabitants of opposite places on the earth enjoy at the same time, as well as the hours of the day at these places, being contrasted, give rise to certain distinctions with which it is also necessary to be acquainted.

Those who live under opposite meridians, at equal distances from the equator, and upon the same side of it, are termed *peræci*. They have the same seasons, but reckon at the same instant opposite hours: it being midnight with the one when mid-day with the other.

Those who live under the same meridian on opposite sides of the equator, and at equal distances from it, are called *antæci*. They have the seasons at opposite times, but reckon at the same instant the same hours.

The people who live at equal distances from the equator, and under opposite meridians, are termed *antichthones*, or *antipodes*. They have both the seasons and the hours of the day at opposite times.

place that comes under the same point of the meridian where New York was, is where the *peræci* dwell, or people that have the same seasons, and at the same time, as New York, and the same length of the days and nights, but have an opposite hour, it being midnight with the one when noon with the other. Lastly, While the place of the *peræci* is at the meridian, count by the meridian the same degree of latitude south, and that will give the place of the antipodes of New York. They have all their hours and seasons opposite to those of New York, being noon with the one when midnight with the other, and winter with the one when summer with the other.

IX. *To find the sun's place in the ecliptic and also on the Globe at any given time.*—Find in the calendar, on the wooden horizon, the given month, and day of the month, and immediately opposite will be found the sign and degree which the sun is in on that day. Then in the ecliptic drawn upon the globe, find the same sign and degree, and that will be the place of the sun required.

X. *The time being given at any place, to find the place on the earth to which the sun is then vertical.*—Find the sun's place on the globe by the last problem; and turn the globe about till that place come to the meridian; mark the degree of the meridian over it, which will show the latitude of the required place. Then turn the globe till the given place come to the meridian, and set the index of the hour-circle to the given moment of time. Lastly, Turn the globe till the index points to twelve at noon, and the place of the earth corresponding to that upon the globe, which stands under the meridian at the point marked as before, is that which has the sun at the given time in the zenith.

XI. *To find all those places on the earth to which the sun is vertical on a given day.*—Find the sun's place in the ecliptic on the globe, as in the last problem, and bring that place to the meridian. Turn the globe round, and note all the places which pass under the same point. These will be the places sought. This problem enables us to determine what people are *æscii* on any given day. It is evident, that in a similar manner we may also find to what places on the earth the moon or any other planet is vertical at a given time: the place of the planet on the globe at that time being found by its declination and right ascension.

XII. *A place being given in the torrid zone, to find on what two days of the year the sun is vertical at that place.*—Bring the given place to the meridian, and note the degree it passes under. Turn the globe round, and note the two points of the ecliptic which pass under the same degree of the meridian. Then, find by the wooden horizon on what days the sun is in these two points of the ecliptic, and on these days he will be vertical to the given place.

XIII. *To find how long the sun shines without setting in any given place in the frigid zone.*—Subtract the degrees of latitude of the given place from 90, which gives the complement of the latitude, and count this complement upon the meridian from the equator towards the pole, marking that point of the meridian; then turn the globe round, and observe what two degrees of the ecliptic pass exactly under the point marked on the meridian. It is evident, that the sun will shine upon the given place without setting while it is in these, and all the points of the ecliptic that are nearer to the given place. Find, therefore, upon the wooden horizon the months, and days of the months in which the sun is in the two points in question, and the intermediate time will be that during which the sun constantly shines at the given place.

XIV. *To find how long the sun never shines upon any given place in the frigid zones.*—Count the complement of latitude towards the south, or farthest pole, and then proceed exactly as in the last problem.

XV. *To rectify the globe to the latitude of any place.*—Move the brass meridian in its groove, till the elevation of the pole above the horizon be equal to the latitude.

XVI. *To rectify the globe to the horizon of any place.*—Rectify the globe to the latitude of the place by the last problem; and then turn the globe on its axis till the given place come to the meridian. The place will then be exactly on the vertex of the globe, 90 degrees distant every way from the wooden horizon; and that horizon, therefore, will represent the horizon of the given place.

XVII. *To find the bearing of one place from another, and their angle of position.* — Rectify the globe to the horizon of one of the places. Screw the quadrant of altitude to the zenith point of the meridian, and make it revolve till the graduated edge passes through the other place. Then look on the wooden horizon for the point of the compass, or number of degrees from the south, where the quadrant of altitude meets the horizon, and that will be the bearing of the latter place from the former, or the angle of position sought.

XVIII. *To find all those places on the earth to which the sun at a given time is rising or setting; also what places are then illuminated by the sun, or in darkness; and where it is noon, or midnight.* — Find the place to which the sun is vertical at the given time, and rectify the globe to its horizon, in which state the place will be in the zenith point of the globe. Then is all the hemisphere above the wooden horizon enlightened, or in daylight, while the hemisphere below the horizon is in darkness, or night; lastly, to all these places by the eastern side of the horizon, the sun is just setting, and to those by the western side, he is just rising.

XIX. *The time of a solar or lunar eclipse being given, to find all those places at which the eclipse will be visible.* — Find the place to which the sun is vertical at the given time, and rectify the globe to the horizon of that place. Then, by the last problem, it is evident, that if the eclipse be solar, a part of it at the beginning only will be seen in places which are not far above the eastern side of the horizon; while, in the rest of the upper hemisphere, the

whole of the eclipse will be visible. A part of it at the end will be seen in places which are near to the lower side of the western part of the horizon. If the eclipse be lunar, the moon will be in the opposite point of the ecliptic to the sun, and vertical to that point of the earth which is opposite to the place to which the sun is vertical. The eclipse, therefore, will be visible in the lower hemisphere.

XX. *To find the beginning and end of twilight, on any day of the year, for any latitude.* — It is twilight in the evening from sunset till the sun is 18 degrees below the horizon; and in the morning from the time the sun is within 18 degrees of the horizon till the moment of his rising. Therefore, rectify the globe to the given latitude, set the index of the hour-circle to 12 at noon, and screw on the quadrant of altitude. Find the point of the ecliptic which is opposite to the sun's place, and turn the globe on its axis westward along with the quadrant of altitude, till that point cut the quadrant in the 18th degree below the western side of the horizon. The index will then show the time of dawning in the morning. Next turn the globe and quadrant of altitude towards the east, till the same opposite point of the ecliptic meet the quadrant the 18th degree below the eastern side of the horizon. The index will then show the time when twilight ends in the evening.

XXI. *To rectify the globe to the present situation of the earth.* — Rectify the globe to the horizon of the place. Its situation will then correspond to that of the earth; and, if it stand in the sun, it will be illuminated as the earth is.



Actual Position of the Eastern Continent in relation to America.

GENERAL VIEW OF THE GLOBE.

1. *Northern and Southern Hemispheres.* The terraqueous globe is divided by the equator into two equal parts, called the Northern and Southern Hemispheres. But the slightest glance at a map of the world will show, that there is a much greater accumulation of dry land in the former than in the latter ; recent voyages have, indeed, shown, that this inequality is not so great as was thought by geographers of the last century, large masses of land having been discovered in the Antarctic Seas, and the northern coasts of Asia and America having been shown not to extend so far north as was once supposed. The following statement will show the comparative distribution of land and water in the two hemispheres. If we divide the whole surface of the earth into 1000 parts, we shall find

	Land.	Water.
In the whole sphere,	266 parts.	734 parts.
Southern Hemisphere,	68·7 “	431·3 “
Northern Hemisphere,	197·2 “	302·8 “

The whole of Asia, Europe, and North America, much the greater part of Africa, and a part of South America, lie north of the equator, and large masses of land advance to within 25 degrees of the north pole, and considerable tracts much nearer. While only a small portion of Africa, with New Holland, the bulk of South America, and some islands, rise above the

waters in the south. There is, indeed, a much larger tract about the south than around the north pole, that has not been explored, and it is now ascertained that an Antarctic continent lies in that quarter. America reaches only to 56° South Lat., Africa to 34°, and New Holland to 45°, while on the north, Asia, Europe, and America, project above the 70th parallel of latitude.

2. *Eastern and Western Hemisphere.* The two great continents of which the land is composed, are commonly so projected on maps as to form two separate hemispheres. The eastern then includes, in addition to the continental portion, New Holland and the islands around it ; and the western com-



Eastern Hemisphere.

prises most of the small islands of the Pacific with the American continent. The distribution of land and water is not less unequal in this than in the former division. Thus we have

	Water.	Land.
In the Eastern Hemisphere,	320 parts.	186 parts.
In the Western Hemisphere,	414 "	80 "

Another striking circumstance in the conformation of the two continents, is the different disposition of the land in each. In the old continent, the principal extension is to the west and east, the breadth from north to south being comparatively inconsiderable, particularly if we leave out the southern tongue of Africa; in the new, the great extension is from north to south.

In the former, we may draw continuous straight lines over land of great extent, but in the latter, in order to draw lines of much length, it will be necessary to make them winding. Thus a straight line from the Gulf of Guinea to the northwestern coast of Siberia is 9,000 miles in length; the longest straight line we can draw on the new continent is from Cumana to Terra del Fuego, 5,400 miles. Conformable to this general extension of the land, is the

Northern Coast.



Western Hemisphere.

direction of the great mountain chains in the two hemispheres. The Rocky Mountains, the Cordilleras, and the Andes, stretch north and south; while starting with the Pyrenees and the Alps in Europe, we may follow an almost unbroken chain of lofty mountains, comprising the Tauro-Caucasian, Himalaya, and other Asiatic chains, to the shores of the Pacific ocean. Even the direction of the smaller portions of both continents, as their islands and peninsulas, nearly coincides with the general course of the great mountain chains.

We shall now proceed to describe the different countries and states of the globe under the following heads and in the following order;

1. Europe. — 2. Asia. — 3. Africa. — 4. Greenland. — 5. North America. — 6. West Indies. — 7. South America. — 8. Oceanica.

Giving first a general description of each division, sketching its physical and political features, and pointing out its minerals, plants, animals, and inhabitants, we shall then pass to a more particular consideration of the separate parts of which it consists.

GEOGRAPHY

OF

THE OLD WORLD.

CHAPTER I. GENERAL VIEW OF EUROPE.

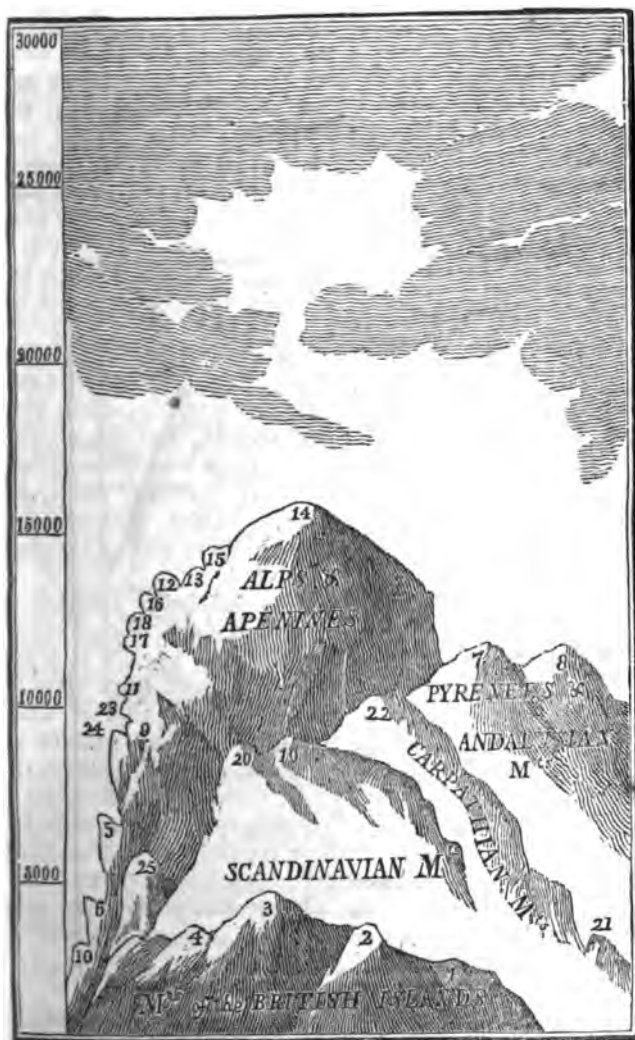
1. **Boundaries and Extent.** Europe is bounded N. by the Arctic Ocean; E. by the Ural Mountains, the river Ural, the Caspian Sea, the Black Sea, and the Archipelago; S. by the Caucasus and the Mediterranean Sea, and W. by the Atlantic Ocean. It lies between 35° and 71° N. lat., and between 10° W. and 64° E. long., exclusive of the islands; its greatest length from east to west is 3,300 miles; its greatest breadth 2,500 miles; area 3,720,000 square miles.



2. **Seas and Gulfs.** On the northern coast is the White Sea, a large and deep bay, but frozen over a considerable part of the year. Between Great Britain and the continent is the *German Ocean* or *North Sea*, an arm of which, between Jutland and Norway, is called the *Scagerac*; and another, between Jutland and Sweden, takes the name of the *Cattegat*. The German Ocean covers an extent of 200,000 square miles, and is divided into two parts by the Dogger Bank. The navigation of this sea is dangerous, being exposed to violent and



Crossing the gulf of Bothnia on the ice.



Comparative Height of the Mountains of Europe.

BRITISH ISLANDS. — 1. Chariot Hill, England, 2,600 feet. — 2. Snowdon, Wales, 9,557 do. — 3. Ben Nevis, Scotland, 4,390 do. — 4. Carran Tual, Ireland, 3,400 do. — FRANCE. — 5. Auvergne, 6,320 do. — 6. Vesuvius, 4,800 do. — SPAIN. — 7. Sierra Nevada, or Snowy Range, 11,600 do. — 8. La Maladetta, highest of Andalusian, 11,005 do. — NAPLES. — 9. Mt. Corno, or Cavallo, 9,520 do. — 10. Vesuvius, (volcanic,) 4,800 do. — 11. Mt. Etna, or Mongibello, (volcanic,) 10,970 do. — SARDINIA. — 12. Mt. Olan, 12,819 do. — SWITZERLAND. — 13. Finsteraarhorn, 14,111 do. — 14. Mt. Blanc, 15,720 do. — 15. Mt. Ross, 8,320 do. — 16. Jungfrau, 12,718 do. — 17. Rhetian Alps, 12,000 do. — AUSTRIA. — 18. Orler, 12,850 do. — SWEDEN. — 19. Scapiteind, 6,460 do. — 20. Sesebstan, 6,120 do. — GERMANY. — 21. Hartz, 2,800 do. — 22. Highest Summit of Carpathian Chain, 10,000 do.

variable winds. Its encroachments upon its southern coast have formed the Gulf of Dollart and the Zuyder See. The *Baltic Sea* extends between Sweden and Russia, and Germany. It is 600 miles long, and has an area of 120,000 square miles. In many places it is shallow, and it is exposed to sudden changes of the wind and violent storms; its tides are inconsiderable, and it discharges its waters through the Sound and the two Belts into the ocean. The gulfs of Bothnia and Finland are its principal arms. The *Bay of Biscay* is an open bay on the western coast.

The *Gulf of Bothnia* extends northerly, between Sweden and Finland, 350 miles, with a breadth of 50 to 140. It is frozen so hard during winter, that travelers cross it from Sweden to Finland in reindeer sledges.

The *Mediterranean Sea* is a large inland body of water, about 2,000 miles in length, and varying from 200 to 800 in breadth, covering an area of 1,000,000 square miles. The tides in this sea are slight, nowhere exceeding two feet. A strong current through the Dardanelles, brings the waters of the Black Sea into this basin, and while a central current sets into it through the Straits of Gibraltar from the Atlantic Ocean, two lateral currents pour its waters through that channel into the ocean. The *Adriatic Sea* or the *Gulf of Venice*, and the *Archipelago*, are its principal arms. The *Black Sea* is a sort of large lake between Europe and Asia, which discharges its waters by the Bosphorus, through the sea of *Marmora*, and the Dardanelles, into the Mediterranean. Including the *Sea of Asoph*, which is properly a gulf of the Black Sea, the latter covers an area of 200,000 square miles. It is so tempestuous and boisterous as to be difficult of navigation.

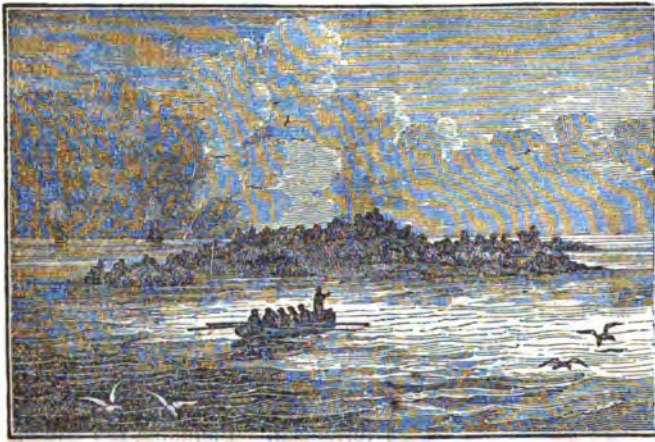
3. *Mountains*. Four great systems of mountains spread their numerous branches over this continent. The *Pyrenees* separate France and Spain, and extend in several parallel chains through the peninsula; their greatest eleva-

tions are from 10,000 to 11,400 feet. The *Alps* are the principal trunk of the second great European system of mountains, whose branches stretch into France, Germany, Italy, Hungary, Turkey, and Greece. The *Vosges*, the *Jura*, and the *Cevennes*, in France, are its western spurs. The Alps, which extend between France and Italy, and the latter and Switzerland, send off a long southern chain through Italy, under the name of the *Apennines*, and stretching easterly through the country to the south of the Danube, reach the Black Sea under the name of the *Balkan*, and the Morea under the name of the *Pindus*. The highest summits are in Switzerland and Savoy, and attain an elevation of from 14,000 to 15,730 feet. A third mountainous system is the *Carpathian*, which nearly surrounds Hungary, and extends along the frontiers of Moldavia, sending off several low ranges into Germany. Its highest summit is not quite 10,000 feet high. The fourth system of mountains is the *Scandinavian*, which traverses the peninsula of Scandinavia, and nowhere exceeds an elevation of 8,500 feet.

4. *Capes*. The most northerly extremity of the mainland is *North Kyn* in Finmark; Cape *North* is the extreme point of Mageroe, an island of Norway. Cape *Skagen* or the Skaw, the northern extremity of Jutland, gives names to the Scagerac. Cape *Lindesnas*, or the Naze, is the southern point of Sweden. Cape *Wrath* on the northern coast of Scotland, Cape *Clear* in Ireland, and *Land's End* in England, are the most noted capes of the British Isles. Cape *La Hague* on the northwest coast of France, Cape *Finisterre* in Spain, capes *Roca* and *St. Vincent* in Portugal, project into the Atlantic Ocean. Cape *Spartivento* in Italy, and Cape *Matapan* in Greece, are the principal points in the Mediterranean.

5. *Peninsulas*. Europe is much indented by arms of the sea, which form numerous peninsulas. The Scandinavian peninsula, comprising Norway, Sweden, and Lapland, is the largest; the isthmus, between the Gulf of Bothnia and the White Sea, is less than 200 miles across. The peninsula of Jutland is much smaller. In the south, Spain and Portugal form a large peninsula, with an isthmus of about 220 miles across. Italy, the Morea, joined to the continent by the narrow isthmus of Corinth, and the Crimea, projecting into the Black Sea, are the other most remarkable projections of this nature.

6. *Islands*. The principal islands are the groups of Nova Zembla and Spitzbergen, in the Arctic Ocean; the British Archipelago, comprising Great Britain, Ireland, and the adjoining isles, on the western coast; and Corsica, Sardinia, Sicily, and Candia, in the Mediterranean. Most of these will be elsewhere described.



its natural advantages, by Turkish tyranny. The chief town is *Candia*, with 15,000 inhabitants, much declined from its former prosperity and splendor. *Canea* is at present the most commercial place in the island; it has 12,000 inhabitants. *Sphakia* is remarkable as the chief place of a district, inhabited by a warlike people, called *Sphakiots*, who have preserved their independence.

The *Azores*, in the Atlantic, midway between Europe and America, are, by some geographers, considered as belonging to Europe, to which they are politically attached, being a Portuguese colony. The group consists of nine small islands, with about 200,000 inhabitants. The principal are *St. Michael's*, *Terceira*, *Pico*, and *Fayal*. *Angra*, on *Terceira*, is the capital, and has a population of 16,000. *Ponta Delgada*, on *St. Michael's*, has about 18,000 inhabitants.

7. *Rivers.* The principal river of Europe is the *Volga*, the only stream whose course exceeds 2,000 miles in length.



Source of a river.

The *Danube* was long considered the largest European river, but it has a course of less than 1,900 miles. The Danube rises in the Black Forest in Baden, becomes navigable at Ulm in Bavaria, passes through the Austrian empire, and separates Austria, Wallachia, and Russia, from the Ottoman empire; after receiving 30 navigable streams, it enters the Black Sea by five principal mouths. The Dnieper, the Don, the Rhine, the Elbe, the Vistula, the Oder, the Loire, Niemen, Dniester, and Rhone are the

next most considerable rivers of Europe.

8. *Face of the Country.* The central part of this continent is, in general, mountainous. The whole northern part, extending from London and Paris to Kazan, and comprising the northern part of France and Germany, the Dutch and Belgian Netherlands, Prussia, Poland, and a great part of Russia, is a vast plain, little elevated above the level of the sea, and scarcely broken by any considerable elevations. There are several elevated plains or plateaus in Europe, but of no great extent. The Swiss plateau, lying between the Jura and the Alps, has an elevation of from 1,800 to 4,000 feet. Central Spain forms an elevated table-land, 2,200 feet high, and the central part of Russia forms a similar plateau, about 1,200 feet high.

9. *Climate.* In general, the climate of southern Europe may be described as mild, and that of the north severe, with long and cold winters, and hot but short summers. The climate of the western coast is, however, tempered by the vicinity of the ocean, and the same cause renders it liable to sudden and violent changes. That of the eastern part of the continent is rendered much colder, in corresponding latitudes, by its exposure to the icy winds of northern and central Asia. The heat, brought by the burning winds of the African deserts to the southern countries, is, in general, tempered by their great exposure to the sea, occasioned by their peninsular formation. The mountains of Switzerland, Spain, and Hungary, also modify the character of the climate in the extensive districts, which they cover.

10. *Minerals.* Europe is less rich, in the precious minerals, than the other quarters of the globe, but it produces great quantities of coal, iron, lead, tin, copper, and salt. Gold, silver, platina (in the Ural Mountains), and mercury or quicksilver, which is of great importance in working gold and silver mines, and diamonds (Ural mountains), and some other precious stones, are also found in considerable quantities.



Olive Tree.

11. *Vegetable Productions.* The most southern parts of Europe have a vegetation resembling that of Africa, and here we find the date-tree (*Phoenix dactylifera*), dwarf-palm (*Chamaerops humilis*), and banana (*Musa paradisiaca*), giving a tropical aspect to the country. In these latitudes the fig, the olive, the orange, the vine, and the maize, find a congenial climate, and even the sugar-cane is cultivated in Sicily. The olive will not thrive, even in valleys, higher than $44^{\circ} 30'$, nor will the vine yield good wine north of 48° , except in a few sheltered spots. At about the northern limits of

the olive, that is, in the parallel of the south of France, the southern forms of vegetation disappear: the *Quercus cerris*, so common in Italy and Turkey, is hardly seen, and evergreen oaks (*Q. ilex*), and common oaks (*Q. pedunculata* and *sessiflora*), supply its place. Clusters of pines

(*P. pinaster*), and Scotch firs (*P. sylvestris*), now occupy the position held by the stone-pine (*P. pinea*), further south; while sweet chestnuts (*Castanea vesca*), narrow-leaved ash (*Frazinus oxyphylla*), the flowering ash (*Ornus Europæa*), mastich-trees, &c., do not thrive further north, in a wild state. Still more to the north, where the vine begins to languish, its place is occupied by fields of wheat and



European Oak.



Rye and Oats.

other corn; the hardier trees, elms, lime (*Tilia Europæa*), oaks, ashes, alders (*sambucus*), beeches (*fagus*), birches (*betula*), willows (*salix*), and poplars (*populus*), are found everywhere. At last, in the more northern districts, aspens (*Populus tremula*), bird-cherries (*Prunus Padus*), birches, lime-trees, alders, junipers, spruce-firs (*Abies excelsa*), and pines, are the principal trees that remain; barley and oats are the only corn-plants, but potatoes continue to be reared in the short cold summers. To the north of the limit of the olive, turnips and buck-



Barley and Wheat



Hops.



Hemp.

wheat (*Polygonum fagopyrum*) are cultivated advantageously, as are also hemp, flax, hops, carrots, parsnips, common clover, beans, vetches, and lucerne, as common field-crops. In still higher latitudes, the predominant forms of herbaceous vegetation are numerous species of ranun-



Buck Wheat.



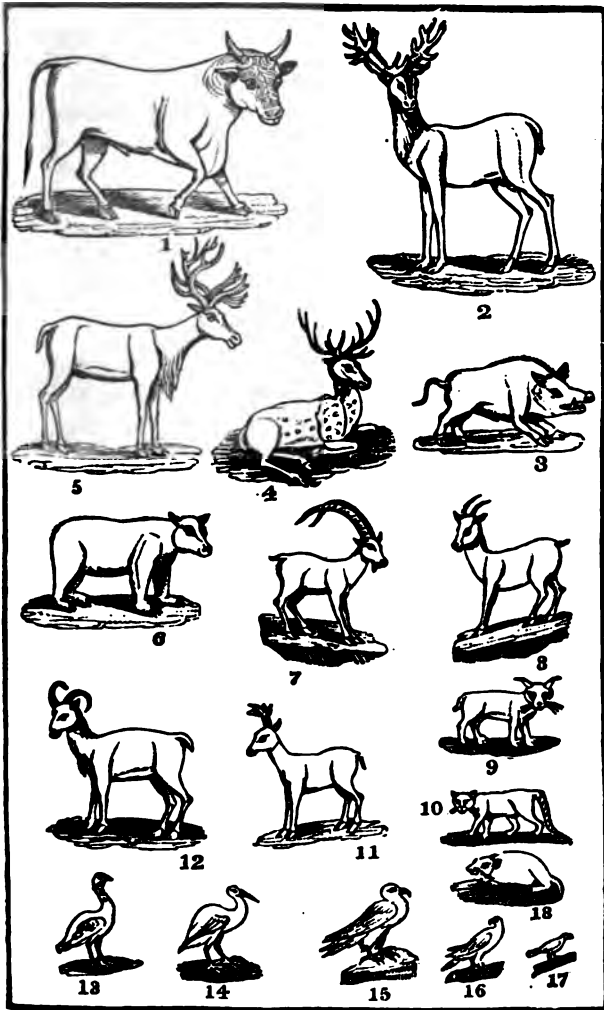
White Clover.



Meadow Clover



Lucerne.



Comparative Size of the Animals of Europe.

1. Wild Bull. — 2. Stag. — 3. Wild Boar. — 4. Fallow Deer. — 5. Reindeer. — 6. Brown Bear. — 7. Ibex. — 8. Chamois. — 9. Lynx. — 10. Wild Cat. — 11. Roe Buck. — 12. Musmon. — 13. Great Bustard. — 14. Stork. — 15. Lammergeyer. — 16. Falcon. — 17. Nightingale. — 18. Marmot.

culus, saxifrages, primula, moss, lichens; and there also occur abundance of stunted or pigmy trailing shrubs, such as bilberries (*Vaccinium myrtillus*), and whortleberries (*V. uliginosum*), dwarf willows (*Salix herbacea*), crowberries (*Empetrum nigrum*), bear's foot (*Uva ursi*), and the like. These changes occur with the change of latitude in the low country, but similar alterations take place, if we ascend from the plains to the mountains. In Sicily, for instance, from the tropical vegetation of the valleys, you may ascend through that of the temperate and frigid zones, by climbing the lofty flanks of Etna.

12. *Animals.** The Wild Bull or aurochs (*Bos urus*) is chiefly to be met with in the extensive forests of Lithuania. It is black, and of great size; the eyes are red and fiery; the horns thick and short, and the forehead covered with a quantity of curled hair. This animal greatly resembles the tame kind. The Musmon (*Ovis musmon*) is considered as a link between the sheep and goat, resembling both of them. It is found in Greece, Sardinia, Corsica, and Tartary. It is strong and muscular, and runs with great agility over the most dangerous precipices. It is very timid, and seldom taken alive. The Goat is very abundant in Great Britain; and the north of England and Scotland are much resorted to for the purpose of drinking the milk, which is of great ben-

* The native animals of Europe are not very numerous, and greatly varied in their kinds; many, however, have been introduced from other countries. The horse, which was brought from Arabia, has, by cultivation and educa-

efit to invalids. In the mountainous parts of Europe, the goat supplies the natives with many of the necessaries of life. The Ibex (*Capra ibex*) inhabits the highest Alps, and is found also in Candia; it is very wild, and the chase of it is attended with great danger. The Chamois (*Antilope rupicapra*) is very abundant in the mountainous parts of Europe, where it is found in flocks among the rocks. The hunting of this animal is very laborious and difficult, but followed with great ardor by the hunters, who frequently lose their lives in the pursuit. The Elk (*Cervus alces*) is the largest and most formidable of the deer kind of Europe. It inhabits the northern parts. It is 7 or 8 feet high, and its horns are of a large size. It is timid and inoffensive, and runs with great swiftness, in a high shambling kind of trot. The Reindeer (*C. tarandus*) inhabits the northern regions of Europe, and is of the greatest importance to the inhabitants, particularly to the Laplanders, who derive from it all the necessities of life.

The Stag or Red Deer (*C. elaphus*) is found in the forests and mountains of the north of Europe; but it is not as numerous in its wild state as formerly in England; yet many of them are kept in parks. The hunting of the stag has always been a favorite diversion.



The Stag or Red Deer.



The Fallow Deer.

The Fallow Deer (*C. dama*) differs from the stag in the size and form of its horns, but in other respects these two animals are nearly the same. The Fallow Deer is found in nearly all the countries of Europe, with a slight variation of color. The Roe Buck (*C. capreolus*) was formerly common in England and Wales, but it is now only found in the Highlands of Scotland, and other northern parts of Europe. It is the smallest of the European deer, elegant in its form, and light and easy in its movements. It runs with great swiftness, and shows great artifice in eluding its pursuers.

The Wild Boar (*Sus aper*) is the original stock of the varieties of the hog. He is nearly black, and armed with formidable tusks in each jaw. He will not attack an animal if unprovoked. The hunting of the wild boar is a dangerous but common amusement, in the countries where he is found.

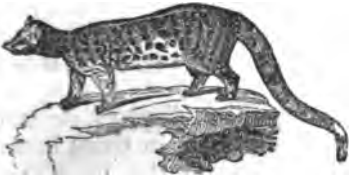
tion, been here carried to its greatest refinement. In England, more attention has been paid to the subject than elsewhere. The three kinds of horses best known in that country, are the Race horse, the Hunter, and the Carriage horse. It is a curious circumstance, that in the mixture of all these races, the influence of the Arab blood is observable. The Persian, Barbary, and Turkish horses, are

those which come nearest to the Arabian, in conformation and qualities; and the Spanish horses long enjoyed a high character in Europe, probably from the breed being kept up by the intermixture of horses from Barbary. In France are numerous varieties, and most of them are serviceable animals. The other European races, it would be impossible to enumerate.



Wild Boar.

ern parts of Europe, and is of a yellowish brown color in summer, and nearly white in winter, when it is called *ermine*. It is then much sought after for its valuable fur, which makes a considerable article of commerce. It resembles the weasel in its habits and manners. The Pine Weasel (*M. abietum*) is found in the north of Europe, living in large forests, and feeding on the tops and seeds of pine trees. The skins of these animals form an article of commerce. The Marten (*M. fagorum*) is very common, and lives wholly in the woods and feeds on small animals and birds. The Sable (*M. zibellina*) is highly esteemed for its fur, and is a native of the cold regions of the north. It lives in holes in the earth by the banks of rivers, and is very lively and active in pursuit of its prey. Immense numbers of them are taken in Russia. The Polecat (*M. putorius*) resembles the marten in appearance, but differs from it in having a most offensive smell.



Genet.

The Genet (*Genetta vulgaris*) is met with in Turkey, and Spain, where it is found to be useful in destroying rats, mice, and other vermin. It yields an agreeable perfume. The Badger (*Meles vulgaris*) is a native of the temperate climates of Europe, but does not exist in warm countries. It is an indolent animal and sleeps much, and feeds only in the night. It lives in holes in the ground, and subsists on roots, fruits, grass, and insects. Its skin and hair are used for various purposes. The Glutton or Wolverine (*Gulo*

luscus) is found in the northern countries of Europe. It is famous for its gluttony and strength. It attacks large animals by fastening itself on their necks; it then sucks their blood and devours the flesh. It is hunted for its skin, which is very valuable.

The Brown Bear (*Ursus Arctos*) is found in almost every climate, and is a savage and solitary animal, living in inaccessible precipices, and unfrequented places. This animal will often climb trees and devour fruit in great quantities. It climbs with surprising agility, keeps itself firm on the branches with one paw, and, with the other, collects the fruit. It is remarkably fond of honey, which it will encounter great difficulties to obtain. Its voice is a deep and surly growl, and it is easily irritated. It is often tamed and taught to perform various tricks. The Brown Bear is very widely diffused, being found in mountainous districts from the Pyrenees and Alps to the Arctic circle, and as far east as Kamtchatka. The Laplanders hold it in great veneration, and call it the dog of God, and among



Brown Bear.



Black European Bear.

fording the cruel pastime of bear-bating, and as being taught to dance for the amusement of the people, was the brown bear. Some authors have thought, that there was another species found in Europe, to which they gave the name of the Black Bear (*Ursus niger*), but this is now considered to have been a mistake.

The White or Polar Bear (*U. maritimus*) is much larger than the Brown Bear, and is of a yellowish white color. It inhabits only the coldest parts of the globe, and sometimes lives on large islands of ice. It feeds on the carcasses of whales, fish, and seals. It is very ferocious, and is remarkable for its attachment to its young.

The Fox (*Vulpes vulgaris*) is spread over Europe, and everywhere displays the same activity and cunning. The chase of the fox is a very favorite diversion in Great Britain, where it is pursued with great ardor. The Greyhound Fox is found in the mountainous parts of England and Scotland. He is very bold and wild in his appearance. The Cur

Fox is the most common and the smallest species. It lurks about the houses, and steals every thing within its reach. It is very playful and familiar when tamed. The Black Fox (*V. argentatus*) is found in Russia, and its skin is esteemed superior to the finest sable. The Cross Fox (*V. decussatus*) is found in the coldest parts of Europe, where its fur is very valuable. The Arctic Fox (*V. lagopus*) is found in the frozen regions of the north, and is of a whitish color. It burrows in the ground, and sometimes lives in clefts of rocks.

The Wolf (*C. lupus*) is found in almost every country in the world, and is very common in Europe. Its appetite for every kind of animal food is excessive, and when hungry it will attack all sorts of ani-



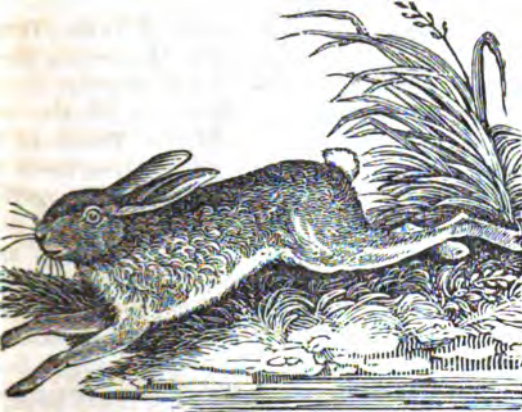
The Common Fox.

mals; even man himself has sometimes fallen a victim to its rapacity. The Jackal (*C. aureus*) is found in Greece. It goes in packs, and hunts like a hound in full cry. It destroys poultry and flocks, and carries off all it can find. It also seeks for dead bodies, and devours them. It hides in holes during the day, but hunts its prey in the night.

the Norwegians there has long been a proverb, that it has the strength of 10 men, and the sense of 12. They never presume to call it by its own name, lest it should be offended, but mention it as "the old man with the fun cloak." It is a curious fact, that the North American Indians seem to hold the bear in the same respect, as has already been stated, under the head of North America. The bear, which figures so often in the accounts of the old English sports, as af-



Wolves attacking Cattle.



European Hare.

of Europe, and changes its color in the winter. Its tail is long and bushy. It makes its nest in hollow trees, and lays up stores of provisions for winter use. Its fur is very valuable. The Fat Squirrel is found in France and the southern parts of Europe. It is of an ash color, and its fur is very soft. The Greater Dormouse is common in the south of Europe, where it infests gardens, and lodges in holes in walls. It is very destructive to all kinds of fruit. The Lesser Dormouse lives in woody or thick hedges, and makes its nest with grass or dried leaves. The Flying Squirrel (*S. volans*) is found in the northern regions of Europe; it sleeps in the day, but is extremely active at night. It frequently takes leaps of twenty or thirty yards, and where numbers of them are seen at a time leaping, they appear like leaves blown by the wind.

Marmots. The Marmot (*Arctomys marmotta*) inhabits the highest regions of the Alps, and is likewise found in Poland. It lives in holes formed in the side of a mountain. There are two entrances to each, and the chambers to which they lead are deep and spacious. In winter they shut themselves up by stopping up the entrance to their holes, roll themselves up in hay, and lie torpid till the warm season. The Lapland Marmot or Leming (*Georychus*) are found in the northern parts of Europe, in immense numbers, overspreading large tracts of country in their march from one place to another. Neither fire nor water prevents their progress; they go straight forwards, swim across lakes and rivers, and overcome every obstacle, or die in the attempt. Their march is mostly in the night. They rest during the day, and devour all the herbage that they meet with. Foxes, lynxes, and weasels destroy great numbers of them.

The Hamster (*Cricetus vulgaris*) is found in various parts of Germany and Poland. It is of the size of a large water rat. It lives in the ground, where it lays up a great store of provisions for the winter.

The Soulsk (*Spermophilus citillus*) is about the size of a large rat; it is found on the banks

Dogs. Of these there are a great variety in Europe, the principal of which are the Sheep-herd's Dog, common in the northern parts of Scotland; the Cur Dog, the Bull Dog, Mastiff, Ban Dog, Dalmatian or Coach Dog, Irish Greyhound, Grey-hound Terrier, Beagle, Harrier, Fox-hound, Old English Hound, Blood-hound, English Setter, Water Spaniel, Springer, Turnspit, and Pug Dog.

The Hare (*Lepus timidus*) is a harmless and inoffensive animal, fearful of every danger, but provided with means of eluding its pursuers by its great swiftness. It is much hunted by man, and by beasts of prey, and is seldom permitted to enjoy a long life. It is found in all parts of Europe. The Alpine Hare (*L. variabilis*) changes in winter from gray to white. It lives in the mountains of the north of Europe. It is easily tamed, and is very playful and frolicsome. The Rabbit (*L. cuniculus*) though it resembles the hare in appearance, differs from it in its habits and propensities. It is common in various parts of Europe, and abounds in Great Britain, where its skin is used in the manufacture of hats.

Squirrels. The Gray Squirrel (*Sciurus Vulgaris*) is common in the northern countries

of the Volga, and burrows in the ground. The Rat (*Mus Rattus*) is of two kinds, the Black and the Brown; the last is known by the name of the Norway rat. The Water Rat (*Arvicola amphibius*) frequents the sides of rivers, ponds, and ditches, where it burrows and forms its nest. The Muscovy Musk rat is a native of Lapland and Russia, where it frequents the banks of rivers, and feeds on small fish. It has a strong flavor of musk.

The Beaver (*Castor fiber*) is found in the northern parts of Europe. The Mouse (*Mus musculus*) is well known over all parts of the world. It is sometimes of a pure white color. The Long and Short-tailed Field Mouse are found only in fields and gardens, where they feed on nuts, corn, and acorns. The Mole (*Talpa Europea*) is found in wet and soft soil, where it burrows with remarkable quickness with its broad and strong paws. It is very injurious to meadows and cultivated grounds.

The Porcupine (*Hystrix cristata*) resides in thickets and hedges, and lives on fruit, worms, beetles, and insects; it conceals itself in the day and feeds during the night. It is provided by nature with a spinous armor, which secures it from the attacks of all the smaller beasts of prey.



Porcupine.

The Otter (*Lutra vulgaris*) is found in most parts of the world. The Sea Otter (*L. marina*) is found in the northern parts of Europe. Its skin is of great value, and is of a beautiful, shining, black color. The Walrus or Sea Horse (*Trichechus*) is found in the northern seas. Great herds of them are sometimes seen together on the shore, or on an island of ice. This animal is hunted for its teeth, which are equal to those of the elephant for whiteness. The Seal is found in the northern seas of Europe, and in great abundance

on the coasts of Great Britain. It swims with great swiftness, is very playful, and feeds on fish.

13. *Birds.* In the following enumeration of European birds, we shall only name those that are original natives of the country. Among those which are domesticated from foreign climates, are the Turkey of America, the Peacock and domestic cock of India, and the Pintado of Africa. Of those which live in a partly domestic state, and are of foreign origin, are the common Pheasant and Golden Pheasant.



Sea Eagle.



Golden Eagle of Europe.

Eagles. The Golden Eagle (*Aquila Chrysaetos*) is found in most parts of Europe, but abounds

in warm regions. The White-tailed Eagle inhabits all the northern parts of Europe. The Sea Eagle (*Haliaeetus albicilla*) is found in various parts, and lives on fish. The Osprey or Bald Buzzard (*Pandion Haliaetus*) is scattered over Europe from Sweden to Greece. The Common Buzzard (*Buteo vulgaris*) is well known. The Honey (*Pernis apivorus*) and Moor Buzzards (*Circus aruginosus*) frequent the northern parts. The Kite (*Milvus ictinus*) is found in the northern latitudes, and is very common in England.

The Goshawk (*Astur palumbarius*) is found in Scotland, France, and Germany. Great use was formerly made of this bird in Falconry. The other hawks common in Europe, are the Kestrel (*Falco tinnunculus*), Merlin (*F. æsalon*), Sparrow Hawk (*Accipiter fringillarius*), Lanner, Peregrine Falcon (*Falco peregrinus*), Hen Harrier (*Circus cyaneus*), and Hobby (*F. subbuteo*). The Lammergeyer (*Gypætus barbatus*) is often seen in the high Alps.



Peregrine Falcon.



Lammergeyer.

Owls. Many species of Owl (*Strix*) are known in Europe, among which are the Great Eared Owl, Long Eared Owl, Short Eared Owl, White or Screech Owl, Tawney Owl, and Little Owl.

The Great Ash-colored Shrike (*Lanius excubitor*) is common in France and other parts. The Red Backed Shrike (*L. rufus*) and Wood Chat are also found in Europe. The Raven (*Corvus corax*), Carrion Crow (*C. corone*), Hooded Crow, Rook (*C. frugilegus*), Jack Daw (*C. Monedula*), Red Legged Crow, Nut Cracker (*Nucifraga caryocatactes*), Magpie (*Pica*



Great Eared Owl.



Rocks.

caudata), Jay (*Garrulus glandarius*), Chatterer, Roller (*Coracias garrula*), and Starling (*Sturnus*), are spread in great numbers over many parts of Europe. Many species of Thrush



Jack Daw.



European Jay.

(*Turdus*) are common, as the Blackbird or Black Ouzel, Ring Ouzel, Missel Thrush, Wate. Ouzel (*Cinclus aquaticus*), Fieldfare, Thristle, and Redwing. All these are sweet singers.

The Cuckoo (*Cuculus canorus*) and Wryneck (*Junco*) are found in various countries.

There are many species of Woodpecker (*Picus*), the principal of which are the Great Black Woodpecker, Green Woodpecker, Greater Spotted Woodpecker, and Lesser Spotted Wood.



Water Ouzel



Green Woodpecker.



Hoopoe

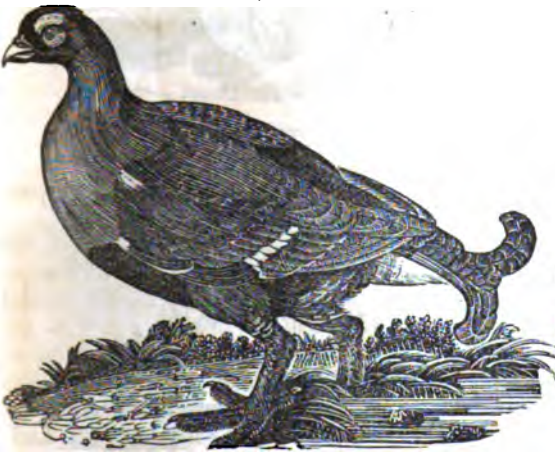


Wood Grouse.

pecker. The Hoopoe (*Upupa*) is a beautiful bird, and is universally met with. The Creeper (*Certhia familiaris*) and Nuthatch are very common.

The Wood Grouse or Cock of the Woods (*Tetrao urogallus*) is a fine bird, found in the high, mountainous parts of Europe, where it lives in pine forests, and feeds upon the leaves of fir-trees. The Black Grouse or Black Cock (*T. tetrix*), Red Grouse or Moor Cock (*Lagopus Scoticus*), and White Grouse or Ptarmigan (*Lagopus mutus*), are found, like the preceding, in high wooded situations. The Partridge (*Perdix cinerea*) and Quail (*Coturnix dactylisonans*) are universally diffused. The Corn Crake (*Crex*) is found in the northern parts of Europe. It lives among the long grass, and seldom permits itself to be seen.

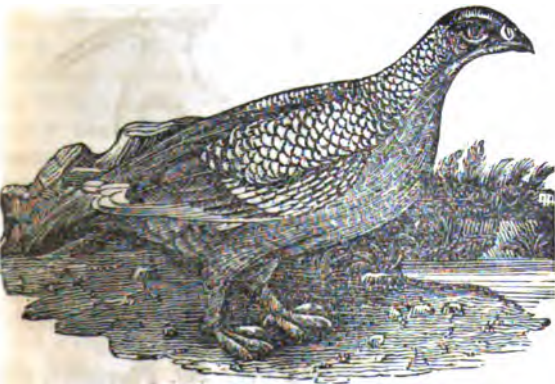
The Great Bustard (*Otis tarda*) is the largest of the European birds, being almost four feet long. These birds run with great rapidity, but fly with



Black Grouse.



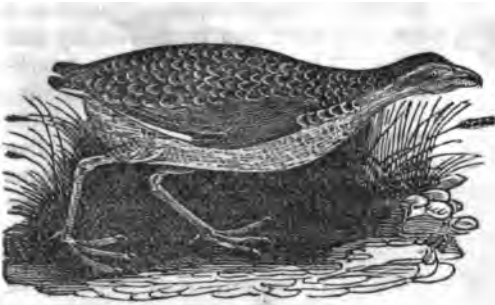
Red Grouse.



White Grouse.



Partridge.



Corn Crane.



Lark.



Great Bustard.

difficulty. They are sometimes hunted by greyhounds, which is said to be excellent sport. They are rare in England, but more common in the middle parts of Europe.

The Crossbill (*Loxia*), Grosbeak (*Coccothraustes*), Pine Grosbeak, Green Grosbeak, and Bulfinch (*Pyrrhula vulgaris*), are curious and beautiful birds, found in various parts of Europe. Several kinds of Bunting (*Emberiza*) are common, as the Yellow Bunting, Black Headed Bunting, Snow Bunting, and Tawney Bunting. Finches (*Fringilla*) are very common, and distinguished for their song. The principal are the House Sparrow, Mountain Sparrow, Chaffinch (*F. caelebs*), Mountain Finch, Goldfinch, Canary Finch, Linnet, Siskin, and Red Pole. The Larks (*Alauda*) are among the sweetest songsters, and many kinds are found. The principal are the Sky Lark (*A. Arvensis*), Field Lark, Wood Lark, and Tit Lark. The Red Wagtail (*Motacilla*), Gray Wagtail, and Yellow Wagtail (*Budytes*), are numerous. The Pied Fly Catcher (*Muscicapa luctuosa*) is found in some parts of Europe.



Nightingale.

The Warblers are all distinguished for their powers of song. The principal are the Nightingale (*Curruca luscinia*), Redbreast (*Erythaca rubecula*), Redstart (*Phanicura ruticilla*), Black Cap (*C. atracapilla*), two or three species of Wren (*Troglodytes*), the Wheatear (*Saxicola rubetra*), and Whinchat (*S. ananthe*). There are several species of the Titmouse widely diffused over Europe, all of which are active and sprightly. The Chimney Swallow (*Hirundo rustica*), Martin (*H. urbica*), Sand Martin (*H. riparia*), and Swift (*Cypselus Murarius*), are common in all parts. One species of Goat Sucker (*Caprimulgus Europæus*) is common. The Wild

Pigeon, Ring Dove (*Columba palumbus*), and Turtle Dove (*C. Turtur*), are very generally diffused.

The Great Plover (*Edicnemus*), Peewit (*Vanellus*), Golden Plover (*C. Pluvialis*), and



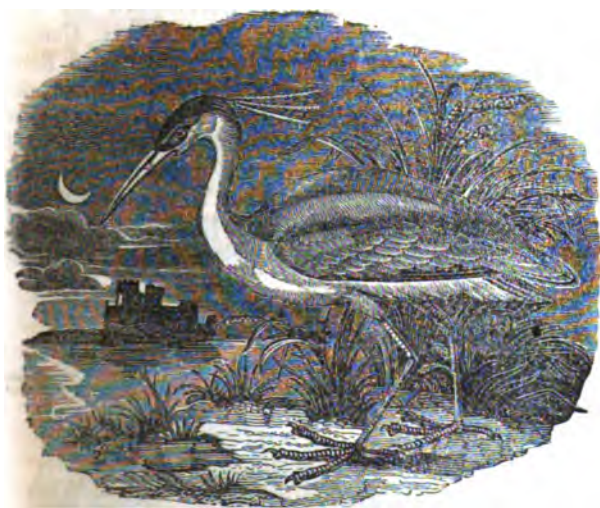
Sand Swallow.



Swallow.

Gray Plover, are all common, and valued for their flesh, which is very delicate. The Dotterel, and King Dotterel, Sanderling (*Arenaria*), and Long Legged Plover, frequent the seacoasts in all the northern countries. The Oyster Catcher (*Haematopus ostralegus*) is the constant inhabitant of the sea shores. The water Crike and Water Rail (*Rallus*) are found in the northern countries. The King Fisher (*Alcedo hispidula*) is very common, and frequents streams of water. The White Spoonbill, Crane (*Grus cinerea*), and White Stork (*Ciconia alba*), are found in different parts. Of Herons (*Ardea*), there are several kinds; as the Common Heron, Night Heron, and Egret (*Arquatus*). The Bittern (*Botaurus*) and Little Bittern are also common. The Curlew (*Numenius*) and Whimbrel (*N. phaeopus*) are found on the sea shores in most parts of Europe.

To the preceding, we may add the following enumeration from Bewick, which embraces the principal species, viz. of the Snipe (*Scolopax*) kind, five species: Woodcock, Great Snipe, Common Snipe, Judcock, and Knot. Of the Godwit (*Limosa*), eight species: Godwit, Red Godwit, Cinereous Godwit, Cambridge Godwit, Lesser Godwit, Greenshank, Spotted Redshank. Of the Sandpiper (*Totanus*), fifteen species, viz. Ruff Shore Sandpiper, Green Sandpiper, Gambet, Ash-colored, Common Brown, Greenwich, Black, Spotted, Redlegged, and Red Sandpipers, Dunlin (*Tringa variabilis*), Purr, and Little Stint (*T. minuta*).



Night Heron.

Two species of Turnstone (*Streptilas*). One species of Waterhen (*Gallinula chloropus*). Two species of Coot (*Fulica*). Two species of Phalarope.

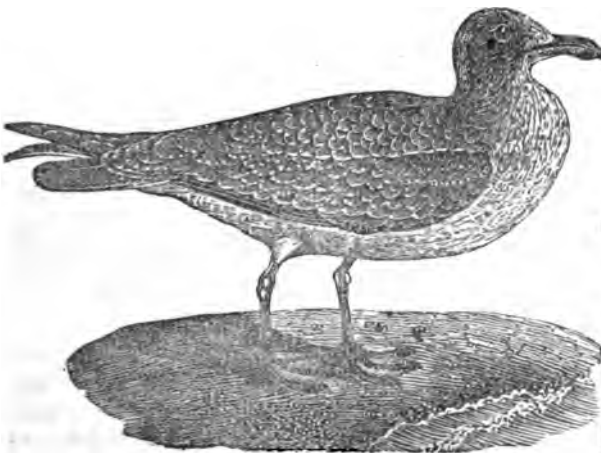
Of the Grebe (*Podiceps*), seven species, viz. Great Crested, Tippet, Eared, Dusky, Red Necked, Little, and Black Chin Grebe. One species of Avoset (*Recurvirostra avocetta*). Of the Penguin, five species, viz. Great Auk (*Alca*), Razorbill, Blackbilled Auk, Puffin, Little Auk. Of the Guillemot (*Uria*), four species, viz. Guillemot, Lesser, Black, and

*Whimbrel.**Arctic Gull.*

rock, and La Grande Mouette blanche. Of the Petrel (*Procellaria*), three species, viz. Fulmar, Shearwater, and Stormy Petrel. Of the Mergus, six species, viz. Goosander,

*Crested Grebe.**Puffin.*

Spotted Guillemot. Of the Diver (*Colymbus*), seven species, viz. Great Northern Diver, Imber, Lesser Imber, First and Second Speckled Diver, Red and Black-throated Diver. Of the Tern (*Sterna*), five species, viz. Common Tern, Lesser Black, Sandwich Brown Tern, &c. Of the Gull (*Larus*), thirteen species, viz. Black-backed, Herring, Winter, Black-headed, Black-toed, Common, Brown-headed, and Arctic Gulls, Kittiwake, Skua, Wagel, Tar-

*Wagel.**Goosander.*

*Dun Diver.**Long-tailed Duck.**Garganey.**Widgeon.*

Dun Diver, Red-breasted Merganser, Smew, Red-headed Smew, Lough-diver. Of the *Anas*, thirty species, viz. Wild Swan (*Cygnus*), Tame Swan, Swan Goose (*Anser*), Canada Goose, Egyptian Goose, Red-breasted Goose, Gray Lag, Tame Goose, White-fronted Wild Goose, Bear Goose, Bernacle, Brent Goose, Eider Duck (*Anas*), Musk, Velvet, Tame, Hookbilled, Scaup, Bimaculated, Ferruginous, Pintail, Long-tailed, and Tufted Ducks, Teal, Garganey, Morillon, Golden Eye, Pochard, Widgeon, Gadwall, Red-breasted Shoveler, Shoveler, Shieldrake, Mallard, and Scoter. Of the Pelican (*Pelecanus*), four species, viz. Corvorant or Cormorant, Crested Corvorant, Shag and Gannet.

*Cormorant.*

Of Reptiles, there are very few species in Europe. Venomous Serpents are rare. Fish of various kinds abound upon the coast, and in the rivers. There are several, as the Sole, Turbot, and others, particularly valued for the table, which are not found in America, or very rarely.

14. Population. It is difficult to estimate the precise amount of the population of Europe, notwithstanding the accuracy with which the census of some countries has been taken. for we

do not possess a census of contemporary surveys, and in Turkey the population can only be loosely estimated from the number of hearths paying tax to the Porte. The population-returns of Hungary, Spain, and Transylvania, are very old. In 1787, Zimmerman estimated the population of Europe at 144,000,000; Malte Brun, at 205,000,000; Balbi, in 1826, stated it at 227,000,000, and the best recent estimates make it, at present, about 238,000,000. This population is not equally concentrated throughout Europe. Thus, in the Duchy of Lucca, it is in the ratio of 238 to a square mile; while in Iceland and Färoe it is only $1\frac{2}{3}$; in the Netherlands it is as 212, in Great Britain as 178, and in Sweden and Norway as 10 to the square mile. Upon the whole, the south of Europe is more populous than the north, in proportion to its extent: and must continue so, as the means of subsistence are procured with so much greater facility in the countries of the former, than in those of the latter. The climate of Norway is quite as favorable to longevity as that of Lucca; but the one comprehends a vast tract of rugged, untillable surface; the other is a garden throughout.

15. *Inhabitants.* The inhabitants of Europe belong to 20 different races, but 5 of these comprise the great bulk of the population. 1. The German or Teutonic race comprises the Germans, Dutch, Danes, Swedes, Norwegians, English, and a part of the Swiss; these people speak Teutonic dialects. 2. The Greco-Latin race comprises the Greeks, Albanians, Walachians, Italians, French, Spaniards, and Portuguese, with a part of the Swiss. 3. The Slavonic race embraces the Russians, Poles, Lithuanians, Bohemians, Servians, Bosnians, Dalmatians, Bulgarians, with the Wends of Prussia, the Sorbians of Prussia and Saxony, the Lettes of Russia, &c. These three races are the most numerous. 4. To the Uralian or Finnic race belong the Finns, Laplanders, Esthonians, in the extreme north, and some smaller tribes in Russia. 5. The Turkish race comprises the Ottoman Turks or ruling people of Turkey, the Turcomans, the Magyars or Hungarians, and the tribes called Tartars, in Russia.

Beside these principal races, are the Biscayans of Spain; the Celts, comprising the Highlanders of Scotland, the native Irish, the Welsh, and the Bretons of western France; the Samoiedes; the Mongols, of whom the only tribe are the Calmucks of Russia; Jews; Armenians; Gypsies, &c. The Gypsies, called Bohemians in France, Gitanos in Spain, and Zigeuner in Germany, are a roving tribe, supposed to be originally from Hindostan; they are scattered all over Europe, and their number is estimated at 600,000 or 800,000. They live sometimes in tents, often in caves, or in huts half under ground, and covered with sods. They rarely pursue any regular trade, but are often jugglers, fortune-tellers, &c. They have a peculiar language, but no religion, except a few superstitious observances.

16. *Religion.* There are three great monotheistical systems of religious belief predominant in Europe, viz:

(1.) Christianity, of which the principal seat and centre, though not the birth-place, is Europe. The Christian nations in Europe, are divided into three leading sects, viz. 1st. The Greek Catholic, or Eastern Church, which prevails in Greece, part of Albania and Bulgaria, in Servia, Sclavonia, Croatia, Walachia, Moldavia, Russia, &c. 2d. The Latin or Roman Catholic Church, of which the Pope, one of the sovereign powers of Europe, is the head. This creed is predominant in Italy, Spain, Portugal, France, Austria, the half of Germany and of Switzerland, Belgium, Poland, and Ireland, and numbers some adherents in Great Britain, Holland, and Turkey. 3d. The Protestant Church, which predominates, under different creeds, in Denmark, Sweden, Norway, Great Britain, Prussia, a part of Germany and of Switzerland. This faith has also numerous professors in Hungary, Transylvania, and France. Its principal branches are the Lutheran, the Presbyterian or Reformed, and the Episcopalian Churches. (2.) Mahometanism, or Islamism, is professed by the Turks. (3.) The Mosaic or Jewish religion. There are about 2,500,000 Jews scattered throughout Europe. They are not tolerated in Spain, Portugal, and Norway. In the Austrian States they have few privileges. In Great Britain their situation is not quite satisfactory. In Russia the laws relating to them have recently become very intolerant. In the States of the German confederation, in France, Prussia, and the Low Countries, they enjoy the rights of citizens; but in Poland, they have but recently lost their privileges. The Calmucks, and many of the Samoiedes, are Pagans.

View of Religions in Europe.

	Population.		Population
Roman Catholics	132,000,000	Jews	3,000,000
Greek Catholics	59,000,000	Armenians	300,000
Protestants	53,000,000	Pagans, (Buddhists, Hindoos, &c.)	
Mahommedans	7,000,000		

17. *Classes of Society.* In almost every European state, we find the citizens divided into four distinct classes. The first is that of the nobility, which exists in every state, with the exception of Norway and the Turkish empire. Nobility is, in most cases, viewed in Europe as an hereditary rank; but it can be acquired by the will of the sovereign, and even, in some instances, purchased by money. The clergy form the second class of the community. The third is that of the citizens, or inhabitants of towns, which, in most countries, enjoys peculiar rights and privileges. The fourth and lowest class includes the peasants, and forms the mass of the population in every country.

18. *Industry and Commerce.* With the exception of the Nogaiens, Lapponians, and Samoiedes, in Russia, who yet lead the life of herdsmen or hunters, all the nations of Europe have been permanently located for many centuries. The cultivation of the soil has, therefore, been carried to great perfection in this part of the earth. Husbandry is pursued with the greatest industry, in the British empire, the Netherlands, Switzerland, Germany, some parts of Italy, Denmark, and Sweden. The agriculture of the east of England, and Scotland, the Netherlands, Germany, and the northern parts of France and Italy, is most distinguished; although Russia, Hungary, and Poland, whose agriculture is not nearly so advanced, are the granaries of Europe. The rearing of cattle is, in some countries, pursued only in connexion with agriculture; in the mountainous districts alone, it forms the principal branch of rural industry. The cultivation of fruits belongs to the temperate districts, particularly France and Germany; but the finer fruits can only be extensively reared in the southern parts of Europe. The manufacture of wine is most considerable in France, the south of Germany, Hungary, Spain, Portugal, Italy, and the Turkish empire. The finest kinds are produced in Tokay, upon the Chalk Hills of Champagne, the Gold Hills of Burgundy, the banks of the Rhine and Garonne, in Spain, the two Sicilies, the banks of the Upper Douro, and some islands of the Ægean Sea. The olive belongs to the warmer regions, particularly Apulia, Atino, in the Neapolitan territory of Terra di Lavoro, and Spain; the other vegetable oils are produced in the temperate parts of Europe. The rearing of silk-worms is also peculiar to warmer climates, and is chiefly carried on in Lombardy. The cultivation of forests has been greatly neglected in most countries, and in many, a very sensible want of wood begins to be felt, although Europe is, on the whole, well-stocked with wood.* Fishing is peculiarly important to the coast-nations of Europe, who take herrings, tunnies, anchovies, mackerels, and various other species of fish, from the surrounding seas. Hunting forms a principal occupation only to a few small tribes in Russia. Mining is conducted with great skill in England, Germany, Hungary, and Sweden.

European industry is rivalled by no other part of the world, either in the diversity or the extent of its productions, although the Japanese and Chinese have cultivated some branches of art for many thousand years. Europe not only manufactures its own raw produce, but also that of almost every other region of the earth. The principal seats of European industry are Great Britain, the Netherlands, Belgium, France, Germany, and Switzerland. The best woollen fabrics are made in England and France; cotton, in England, Saxony, and France; linen, in Germany; lace, in Brabant; silks, in France; paper, in Holland and Switzerland; leather, in Turkey and Russia; china, in Germany; earthen-ware, in England and France; glass, in Bohemia and England; hardwares, in England; bijouteries, in France and England; millineries, in France; straw-hats, in Italy; and jewelry-work, in France, Germany, and England.

The internal commerce of Europe is carried on in all countries with considerable animation, and is facilitated by well-constructed highroads and canals, which are particularly good in the British empire, the Netherlands, France, Lombardy, Prussia, and Russia. The British, French, Danes, Netherlanders, Swedes, Hanseates, Ragusans, and Hydriots, are most distinguished in maritime commerce. But no nation can in this respect be compared with Great Britain, whose fleets are in every sea, and colonies in almost every region of the earth. As a medium of exchange, all European states coin money. Many states likewise support a paper

* Europe was doubtless covered with primitive forests, previous to its being populated from Asia. These forests disappeared before the gradual advance of the original No-made tribes, from northeast to southwest. France was pretty well cleared of forests in A. D. 950, though they existed a much longer time in Germany. Mountainous districts preserve their forests longest, on account of the difficulty of transportation. The mildness of the climate in Spain and Turkey, renders the destruction of the for-

ests, for fuel, less necessary. Greater attention is paid to the growth of wood in Germany and Switzerland, than in Italy and France. Austria is covered with forests. Moravia is well-wooded; Bohemia less so. Hungary has much wood; and Transylvania possesses it in abundance. But the best wood for ship-building is furnished by Russia, Norway and Sweden. Britain affords some noble timber, but in small quantity.

currency, the imaginary value of which is maintained upon public credit. A prodigious quantity of money has been coined in Europe; but the ready money in circulation can scarcely exceed 1,000 millions of dollars, of which the greater part is in circulation in Germany and France.

19. *Political Divisions.** Europe comprises 4 empires : Austria, Russia, France and Tur-

* *States of Europe, with the Form of Government, Square Miles, and Population in 1840.*

States and Titles.	Form of Government.	Sq. Miles.	Population.
Andorra, Republic, - - - -	With two syndics, and a council,	190	15,300
*Anhalt-Bernberg, Duchy, - - - -	States having limited powers,	336	45,500
*Anhalt-Cöthen, do. - - - -	Do. do.	310	36,400
*Anhalt-Dessau, do. - - - -	Do. do.	337	57,600
*Austria, Empire, - - - -	Absolute monarchy, except Hungary, &c.,	255,226	34,100,000
*Baden, Gr. Duchy, - - - -	Limited sovereignty; — two chambers,	5,712	1,240,000
*Bavaria, Kingdom, - - - -	Limited monarchy; — two chambers,	28,435	4,300,000
Belgium, do. - - - -	Do. do.	12,569	4,230,000
*Bremen, Free City, - - - -	Republic; — senate and convention,	67	57,500
*Brunswick, Duchy, - - - -	Limited sovereignty; — one chamber,	1,525	250,000
Church, States of, Poppedom, - - - -	Absolute elective sovereignty,	17,048	2,500,000
Cracow, Republic, - - - -	Senate and chamber of representatives,	490	124,300
†Denmark, Kingdom, - - - -	Absolute monarchy; — with provincial states,	59,762	2,097,400
France, Empire, - - - -	Absolute monarchy.	202,125	33,600,000
Frankfort, Free City, - - - -	Republic; — senate and legislative body,	91	56,000
Great Britain, Kingdom, - - - -	Limited monarchy; — lords and commons,	116,700	25,300,000
Greece, do. - - - -	Absolute monarchy,	16,200	810,000
*Hamburg, Free City, - - - -	Republic; — senate and common council,	149	153,000
*Hanover, Kingdom, - - - -	Limited monarchy; — two chambers,	14,600	1,679,000
*Hesse-Cassel, Electorate, - - - -	Limited sovereignty; — one chamber,	4,386	689,000
*Hesse-Darmstadt, Gr. Duchy, - - - -	Limited sovereignty; two chambers,	3,198	765,000
*Hesse-Homburg, Landgraviate, - - - -	Absolute sovereignty,	154	24,000
*Hohenzollern-Hechingen, Principality, - - - -	Limited; — one chamber,	136	21,000
*Hohenzollern-Sigmaringen, do. - - - -	Do. do.	383	42,800
Holland, with Luxemburg, - - - -	Limited monarchy; — two chambers,	13,890	2,820,000
Ionian Islands, Republic, - - - -	Under British protection; — council and chamber,	998	242,000
Kniphausen, Lordship, - - - -	Absolute,	17	2,559
*Lichtenstein, Principality, - - - -	Limited monarchy; — with one chamber,	62	5,800
*Lippe-Deimold, do. - - - -	Do. do.	432	79,000
*Lubeck, Free City, - - - -	Republic; — senate and common council,	142	46,500
Lucca, Duchy, - - - -	Limited sovereignty; — with one chamber,	410	145,000
*Mecklenberg-Schwerin, Gr. Duchy, - - - -	Limited monarchy; — with one chamber,	4,701	472,000
*Mecklenberg-Strelitz, do. - - - -	Do. do.	1,094	85,300
Modena and Massa, Duchy, - - - -	Absolute sovereignty,	2,073	390,000
Monaco, Principality, - - - -	Do. do.	50	6,700
*Nassau, Duchy, - - - -	Limited sovereignty; — two chambers,	1,736	372,700
*Oldenburg, Gr. Duchy, - - - -	Absolute sovereignty,	2,470	260,000
Parma, Duchy, - - - -	Do. do.	2,184	440,000
Portugal, Kingdom, - - - -	Limited monarchy; — one chamber of represen.	34,500	3,400,000
*Prussia, do. - - - -	Absolute monarchy; — provincial states,	106,302	13,800,000
*Reus, Principalities of, - - - -	Limited sovereignty; — one chamber,	588	83,400
†Russia, Empire, - - - -	Absolute monarchy,	2,041,809	51,100,000
San Marino, Republic, - - - -	Senate and council of ancients,	21	7,500
Sardinia, Kingdom, - - - -	Absolute monarchy,	28,830	4,500,000
*Saxony, do. - - - -	Limited monarchy; — two chambers,	5,705	1,680,000
*Saxe-Altenburg, Duchy, - - - -	Limited monarchy; — one chamber,	491	113,700
*Saxe-Coburg and Gotha, do. - - - -	Do. do.	790	132,000
*Saxe-Meiningen-Hildburghausen, do. - - - -	Limited monarchy — one chamber,	880	146,400
*Saxe-Weimar-Eisenach, do. - - - -	Limited monarchy; — one chamber,	1,403	243,000
*Schwarzburg, Principality of, - - - -	Do. do.	756	118,500
*Schauenburg-Lippe, Principality, - - - -	Do. do.	205	26,000
Sicilies, The Two, Kingdom, - - - -	Limited monarchy : — with a council,	41,521	7,650,000
Spain, do. - - - -	Limited monarchy; — with a legislature,	176,480	11,963,000
Sweden and Norway, do. - - - -	Limited mon. ; — with a diet and storting,	284,530	4,150,000
Switzerland, Republic, - - - -	Confederation of republics; — a diet,	17,208	2,116,000
‡Turkey, Empire, - - - -	Absolute monarchy,	183,140	12,000,000
*Tuscany, Gr. Duchy, - - - -	Absolute sovereignty,	8,302	1,330,000
*Waldeck, Principality, - - - -	Limited sovereignty; — one chamber,	455	56,000
*Württemberg, Kingdom, - - - -	Limited monarchy; — two chambers,	7,568	1,610,000
Total, - - - -		3,708,871	233,884,800

* Member of the Confederation of Germany.

The Continental part, 21,472 sq. miles, 2,040,000 inhabitants; the Islands, 38,290 sq. miles, 57,400 inhabitants.

† Including the kingdom of Poland, with 47,670 square miles, and 4,100,000 inhabitants.

‡ Including Wallachia, Moldavia, and Servia.

key; 1 elective ecclesiastical monarchy, the Papal state; 16 kingdoms: Great Britain and Ireland, Sweden, Norway, Prussia, Hanover, the Netherlands, Belgium, Denmark, Wurtemberg, Bavaria, Saxony, Sardinia, Naples, Greece, Spain, and Portugal; 7 grand-duchies, Baden, Hesse-Darmstadt, Saxe-Weimar, Meclenberg-Schwerin, Meclenberg-Strelitz, Oldenburg, and Tuscany; 1 electorate, Hesse-Cassel, the sovereign of which, though styled grand-duke by the congress of Vienna, retains his former title of elector; 9 duchies; 10 principalities; 1 land-graviate, Hesse-Homburg; 7 Republics, including the Swiss cantons as one. The last mentioned are mostly based on aristocratical principles. Of the other states it may be observed, that in regard to government they are monarchies, bearing different designations, merely in reference to their titles of the respective sovereigns. There are several provinces or districts, styled kingdoms or principalities, but not independent states; as the principality of Wales, forming part of the British monarchy; that of Poland, in the Russian empire; of Hungary, in the Austrian empire &c.

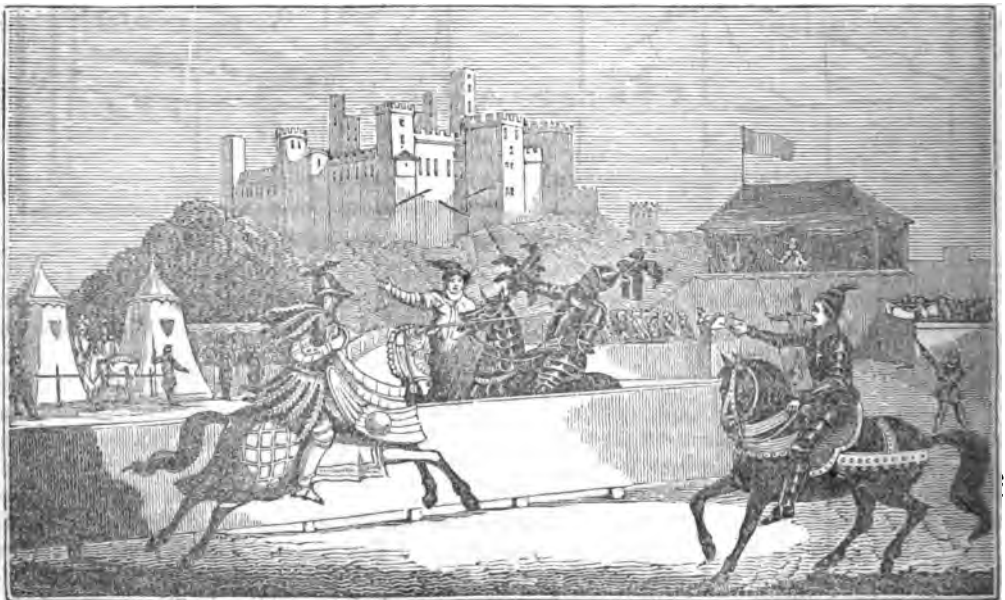


A Map of a Part of Europe, Asia, and Africa, in Ancient Times.

20. History. The earliest historical notices, which we have of Europe, are derived from the traditions of the Greeks, and relate to the settlement of various colonies from Asia and Egypt on the southeastern coasts. These events appear to have taken place between 12 and 15 hundred years before the Christian era; and the fable of Europa, a Phœnician princess, from whom the name of this quarter of the world is said to have been derived, is no doubt founded on fact. The Celts seem, at this time, to have occupied nearly the whole of Europe, and to have been gradually driven westward by the encroachments of the Teutonic and Slavonic races, until they have become nearly extirpated. The Phœnicians, at an early period, explored the coasts of the Mediterranean, passed out of the Pillars of Hercules, along the Atlantic shores, to Britain, and probably even reached Denmark. The Greeks afterwards followed in their course, and penetrated to the Baltic and the coasts of Norway. Under Alexander, that brilliant people conquered a great part of Asia in the fourth century before our era, but the Romans were the first to found a great European empire. From the Clyde to the Hellespont, all southern Europe obeyed their imperial decrees.



But the spirit of liberty was kept alive in the old forests of Germany or Deutschland, and after the division of the Roman empire into the Western or Latin and the Eastern or Greek, the Teutonic hordes poured all over the Western countries, occupying Britain, France, Spain, and Italy. Thus commenced a new era in the history of Europe, called the *Middle Ages*. The Greek empire of Constantinople was not completely overthrown, by the Ottomans, until



Tournament.

the middle of the 15th century. During the Middle Ages the *crusades*, or religious wars of Christendom and of the Islam, in the 11th and 12th centuries, are the most memorable



Battle between a Crusader and a Saracen.

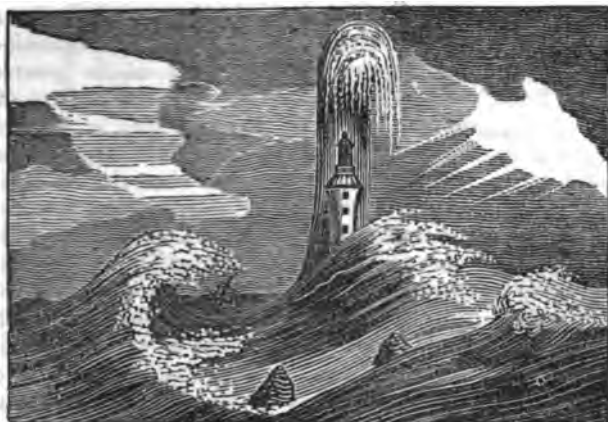
events. Christianity had become the religion of the Roman empire, under Constantine in the 5th century, and, in the course of the next four centuries, the bishops of Rome, under the title of Popes, succeeded in causing themselves to be recognised as the supreme head of the church in all western Europe. This spiritual empire received a fatal blow from Luther in the middle of the 16th century, when the Protestants asserted the great principles of religious liberty. The feudal system, which had oppressed all classes of society, under its iron yoke, also began to relax its hold at about this period; letters revived, and with the aid of the art of printing, knowledge became more diffused. From this era, then,

dates the epoch of the Modern history of Europe, which has been, and still is, characterized by the slow, but sure and general progress of reform and improvement in religion, politics, morals, letters, and art.

CHAPTER II. THE UNITED KINGDOM OF GREAT BRITAIN AND IRELAND.



1. **Boundaries.** The United Kingdom of Great Britain and Ireland is composed of England, Wales, Scotland, and Ireland, with the islands lying upon their shores, and the Anglo-Norman Islands. The British Islands are bounded by the North Sea on the north; the German Ocean washes the eastern shores. On the south, they are divided from France by the English Channel, which extends 350 miles from northeast to southwest. Between Dover and Calais it is narrowed to a strait 25 miles in width, but this widens toward the Atlantic. At the entrance from the west, are the Eddystone rocks, 14 miles from the English coast. A lighthouse, upon these rocks, has long withstood the tremendous violence of the sea, which often, during a storm, buries the lantern in its waves. St. George's Channel and the Irish Sea constitute a navigable gulf of irregular dimensions between Great Britain and Ireland, open

*Eddystone Lighthouse.*

both to the north and south. The western shores of the British Islands are washed by the Atlantic. Area, 120,000 square miles.

The island of Great Britain lies on the western coast of Europe, and extends from 50° to $58^{\circ} 30'$ N. latitude, and from 2° E. to 6° W. longitude. The island is 580 miles long from north to south, and 270 wide at the broadest part, which is along the southern coast. It is very narrow in some of the northern parts. Its whole area is estimated at 88,800 square miles. Ireland is a little more than one third of that area, and is described separately.

The Anglo-Norman Islands lie upon the coast of France, and are a remnant of the British dominion over the ancient Duchy of Normandy. They are Jersey, Guernsey, Sark, and Alderney. The largest is about 12 miles in length. Guernsey and Jersey are covered with orchards, and the latter has produced 24,000 hogsheads of cider in a year. The town of St. Helier, in this island, contains 7,000 inhabitants. The population of all the islands is about 60,000. The inhabitants enjoy great political liberty, and their laws are based upon the ancient Norman customs, but an appeal lies from their courts to the king in council. Their language is French, and no act of parliament is binding upon them until sanctioned by their magistrates. They are exempt from naval and military service, and their commerce is unshackled; the free port of St. Helier allows them an open trade with the enemies of Great Britain, even during war. The Orkneys, Shetlands, and Hebrides, belong to Scotland, and will be described under that head.

Extent and Population of the Principal Divisions.

	Sq. miles.	Pop. 1830.
England . . .	50,210	13,089,338
Wales . . .	8,125	805,236
Scotland . . .	29,787	2,365,807
Ireland . . .	31,200	7,784,536
Totals . . .	119,322	24,044,917

For population in 1841 and 1851 see Supplement.

2. Agriculture. In most parts of the kingdom, but more particularly in England, agriculture is carried on according to the most improved and scientific processes, whether originated in the country, or borrowed from abroad. The best breeds of cattle have been assiduously selected, whether of foreign or domestic origin, and cultivated with the greatest care, and the land has been industriously and skilfully treated according to the rules of the most intelligent husbandry.

Agricultural Statistics of the British Empire. 1831.

<i>Persons employed in Agriculture.</i>					<i>Distribution of Land.</i>	
	Families.	Occupiers emp. Lab.	Occup. not emp. Lab.	Laborers.		
England	761,348	141,460	94,883	744,407	England and Wales	Cultivated Acres. 28,750,000
Wales	73,195	19,728	19,966	55,468	Scotland	5,043,450
Scotland	126,591	25,887	53,968	87,292	Ireland	14,603,473
Ireland	884,339	95,339	564,274	564,441		Not cultivated Acres. 5,340,736
Totals	1,845,473	282,414	733,089	1,451,608		

The total annual value of the agricultural produce is estimated to be about 990 millions of dollars, of which England and Wales yield about 650 millions, Scotland about 115 millions, and Ireland the remainder.

Number of Domestic Cattle.

	Great Britain.	Ireland.
Horses	1,500,000	unknown
Horned Cattle	5,220,000	"
Sheep	40,000,000	2,000,000

3. *Mines and Manufactures.* The unrivaled prosperity and extent of the manufactures of Great Britain are owing, in no small degree, to the abundant supply of coal, iron, limestone, salt, lead, copper, and tin, which different parts of the country afford. Coal, indeed, is the food, as iron is the muscle, of her vast manufacturing industry; which has, perhaps, never been surpassed in the variety, amount, beauty, richness, and value of its products, in the ingenuity and perfection of its processes, and in the skill, method, promptitude, and energy displayed in the management of its gigantic machinery.

Annual Produce of Mines. 1838.

	Tons.	Value.
Coal	26,200,000	\$ 50,000,000
Iron	800,000	30,000,000
Tin	4,500	1,600,000
Copper	13,300	6,000,000
Lead	50,000	5,000,000
Salt	500,000	2,000,000
Total, including various other articles		\$100,000,000

Annual Produce of Manufactures. Persons empl

	\$	Persons empl
Woolens	100,000,000	400,000
Cottons	165,000,000	900,000
Linen	40,000,000	200,000
Silk	50,000,000	208,000
Hard Ware	80,000,000	300,000
Leather and articles	65,000,000	235,000
Earthen Ware	12,000,000	60,000
Glass	10,000,000	50,000
Paper	7,500,000	30,000
Hats and Caps	12,000,000	20,000

The other principal items of manufacture are beer, spirits, soap, candles, refined sugar, furniture, starch, dye stuffs, &c.

4. *Commerce.* History has nothing to show, either among the commercial people of antiquity, or the Middle Ages, or in modern times, that can compare with the value and extent of the commercial operations of the British people. Carrying on, probably, the richest and most active home trade of any nation; seeking, from foreign parts, the various materials of their innumerable manufactures; distributing over all the world the surplus products of their industry; covering all seas with their merchantmen, and ruling all by their vast fleet, and admirably chosen military and mercantile posts, they have expanded their commercial activity even beyond the limits of their mighty political sway. The annual value of the imports is about 250 million dollars; of exports 270 millions; of this last sum, above 200 millions are of domestic produce and manufactures. The following table shows the countries to which the value of the exports is greatest. They are for the year 1838.

United States	\$ 50,000,000
British American Colonies	25,000,000
Germany	22,000,000
East India and China	20,000,000

Holland	12,000,000
Italy, &c.	15,000,000
Brazil	12,000,000

Principal Articles Exported.

Cottons and Cotton Yarn	\$ 96,000,000
Woolens	22,000,000
Linen	10,000,000
Iron and Steel	10,000,000
Hardware and Cutlery	8,000,000
Earthenware	2,800,000
Silks	4,000,000
Refined Sugar	3,000,000
Clothing	2,800,000
Haberdashery and Millinery	2,500,000
Glass	2,500,000
Brass and Copper Manufactures	5,000,000

Shipping of the United Kingdom in 1837

	Vessels.	Tonnage.	Men.
England	14,998	1,821,994	105,075
Scotland	3,244	334,870	24,292
Norman Isles	335	30,387	2,843
Man	265	6,907	1,387
Ireland	1,694	139,363	9,865
Colonies	5,501	457,497	30,044
Totals	26,037	2,791,018	175,306

An attempt has been made by a distinguished statistical writer to estimate the whole animate and inanimate power applied to agriculture, commerce, and manufactures in France and Great Britain; converting the animal power, or that exercised by beasts of burden and draft, and the inanimate power, or that derived from machinery, into their equivalent human power, or that exercised by effective laborers, he gives the following results:

Power applied to Agriculture.

In France.					
Human power	21,056,667	equivalent to	8,406,038	effective laborers,	
Horses	1,600,000	"	11,200,000	"	"
Oxen and cows	6,973,000	"	17,432,000	"	"
Asses	240,000	"	240,000	"	"
Total,		-	-	37,278,038	
In Great Britain.					
Human power	5,000,000	equivalent to	2,132,446	"	"
Horses	1,250,000	"	8,750,000	"	"
Oxen, cows, &c.	5,500,000	"	13,750,000	"	"
Total of Great Britain		-	-	24,632,446	
Add for Ireland		-	-	7,455,701	
				32,088,147	

Taking the whole force in each country and comparing it with the human force, we find the proportion in Great Britain to be as 12 to 1, and in France less than 5 to 1; that is, the agriculturists of Great Britain have created and applied a force twelve times greater than their own corporeal force by the use they make of domestic animals, while the addition so made in France, does not amount to five times their own.

Power applied to Commerce and Manufactures.

		France.			Great Britain.
Animate force	-	6,303,019	men-power.		7,275,497 men-power
Mills, &c.	-	1,500,000	"		1,200,000 "
Wind-mills	-	253,333	"		240,000 "
Wind and Navigation	-	3,000,000	"		12,000,000 "
Steam-engines	-	480,000	"		6,400,000 "
Total		11,536,352			27,115,497
			Add for Ireland		1,002,667
					28,118,164

In France, the whole animate and inanimate force applied to commerce and manufactures, is only about double that of the laborers themselves, while in Great Britain the whole force so employed is about four times that of the actual human force. The whole power so created in Great Britain, in all branches of industry, is equivalent to about 45,000,000 men-power; in France to about 35,000,000 men-power.

5. *Government.* These islands are under one government. The peculiarities of each division are pointed out under their respective heads. The Parliament of England, or as it is now called, the Imperial Parliament, is the sole legislative body. The form of government combines, according to theory, the three principles of monarchy, aristocracy, and democracy. The powers of the king, as described in the chapter upon England, apply to the whole empire. The right of voting for members of parliament, depends on the laws for each particular part of the kingdom.*

* *Sinecures.* These are offices without employment, but with salaries. They consist, in the first place, of employments fallen into disuse, as the chief justices in Eyre, who enjoy salaries of £4,566; the Vice-Admiral of Scotland; the keeper of the Privy Seals of Scotland; and Chancellor and Justice-General of Scotland; the keeper of the Signet in Ireland; all which have salaries of 1,500 to 5,000 pounds. The master of the hawks in the royal household has £1,500. In the second place are the offices, with salaries vastly disproportioned to the employments, and in which the duties are wholly discharged by deputies. Some of these exceed £10,000. Some are nominal duties of a menial nature. A right honorable lady, a Baroness, has held the office of *sweeper* of the Mall in the Park. Noble lords hold the offices of wine-tasters, store-keepers, packers, craners, &c. The sinecures amount in the whole to £356,555.

Pensions, &c. There are about 1,500 pensioners, who

receive £777,556 per annum. This is exclusive of colonial pensions, grants, allowances, half pay, and superannuations for civil, military, and naval services. Pensions are granted for all sorts of service. Almost every high public functionary on retiring from office enjoys a pension from £4,000 downward. The Duke of Wellington has received successively under the title of "national rewards" the sum of £700,000. He had, while premier, £13,140 yearly. Lord Maryborough, his brother, as master of the hounds, had £3,000. Lord Cowley, and Marquis Wellesley, also brothers, had £12,000 and £4,000. A natural son of the last, £1,200. Another brother in the church, £7,000. Lady Mornington, a cousin, £1,000. Lady Anna Smith, a sister, £800. Her husband, £1,200. Lord Burghersh, a nephew, £4,000. Lord Fitzroy Somerset, a nephew, £2,000. Sir Charles Bagot, a nephew, £12,000. Thus the whole family of the Duke of Wellington received £62,000 annually.

6. *Ranks and Orders.* The titled nobles consist of dukes, marquises, earls, viscounts, and barons, called peers. There is also an hereditary order of baronets. Only the peers of England, of Great Britain and of the United Kingdom enjoy the right of sitting in parliament. The Scotch and Irish peers constitute a separate and inferior order, and are represented in the House of Lords, those of Scotland by sixteen, those of Ireland by twenty eight representative peers, chosen from among their number. The whole number of peers sitting in parliament, including thirty bishops, is about 450. But even more powerful than the titled nobility is the great body of landed gentry, including individuals far superior in wealth to the greater number of the lords, and in the aggregate, much richer than the titled nobles. The merchants and manufacturers constitute a third class, which grows more powerful every day.

7. *Army and Navy.* At the close of the war in 1814, the British army including subsidiary troops, exceeded a million of men. This embraced the army in India, the local militia, volunteers, &c. The land forces of Great Britain, including their Indian army amount to about 200,000 men. The only means employed for raising the regular troops is that of voluntary enlistment. But in the defence of the country, the militia, comprising all able bodied men between 18 and 45, are drafted by ballot. The marine force of Great Britain, during the last war with France, included more than 1,000 vessels, manned by 184,000 seamen. This force is much reduced, and there are now about 200 ships in commission. Sailors are enlisted like soldiers; but during war, when seamen are in high demand, the odious press-gang is resorted to; that is, sailors are taken by force, in the streets, and from on board merchant ships, and compelled to serve on board the men of war. The royal navy employs about 30,000 men.

8. *Revenue.* The revenues of Great Britain are immense. The first source of income is the customs, which yield about 75 million dollars. The second is the excise, or duties upon the internal consumption of various articles, as tea, beer, spirits, soap, candles, &c. These produce about the same sum. Next are stamps, and taxes of various sorts, the *poundage* on pensions, salaries, &c., with the post office, all of which yield about 90,000,000. The total revenue amounts to about 220,000,000 dollars. The greatest sum ever raised in a single year, was in 1813; this was 470,000,000 dollars. The foregoing statements are for 1840.

1838.	Principal Heads of Revenue.	1838.	Principal Items of Expenditure.
Customs	£ 23,561,719	Charge of collecting Revenue	£ 2,850,000
Excise (on glass 602,500L., on malt 5,700,000, on soap 980,000, on spirits 5,485,880, &c.)	16,073,299	Public Debt (Interest, payments, &c.)	29,300,000
Stamps (on deeds 1,622,000, on wills 2,940,000, &c.)	7,350,000	Civil List (Queen 390,000, Royal family 260,000, Annuities, &c.)	1,720,000
Land Taxes	1,200,000	Justice	1,336,000
Assessed Taxes (on windows, 1,254,000, servants, horses, carriages, dogs, &c.)	2,721,500	Diplomatic	316,000
Post Office	2,350,000	Army	6,520,000
Miscellaneous	500,000	Navy	4,750,000
		Ordnance	1,444,000
		Miscellaneous	3,800,000

N. B. A pound sterling is \$4.80.

9. *Debt.* The national debt of Great Britain is 4,100 million dollars. This enormous amount has been accumulated by borrowing money, and anticipating each year's revenue to pay the interest. The debt is of two kinds, *funded* and *unfunded*. The unfunded debt consists of deficiencies in the payments of government, for which no regular security has been given, and which bear no interest; and of bills, or promissory notes, issued by the exchequer, to defray occasional expenses. When debts of this kind have accumulated, and payment is demanded, it becomes necessary to satisfy the demand, either by paying the debt, or affording the creditors a security for the principal, and regular payment of the interest. Recourse has been always had to the latter method, and a particular branch of the actual revenue is mortgaged for the interest of the debt. Money borrowed in this manner, is said to be borrowed by *funding*. The public funds, or stocks, are nothing more than the public debts; and to have a share in these stocks, is to be a creditor of the nation.* There are 300,000 holders of public stock in Great Britain. Three-fifths of the current yearly expenditure are taken up in the payment of the interest of the national debt.

* The value of public stock depends upon the stability of the government, and fluctuates, in a small degree, according to the accidents of war, or political changes. There are many persons in London, whose occupation it is to watch these fluctuations, and by buying and selling, as they foresee a rise or fall of the stocks, realize great profits. These are called *stock jobbers*. When the government, by a new loan, contracts an additional debt, bearing a certain fixed interest, it is usual to add this capital to that part of

the public debt which bears the same interest, and to unite the taxes raised for the payment of the interest of both. These bear the name of *consolidated annuities*, or *consols*. The contract between the government and the original subscribers to a loan, generally consists of different proportions of 3 or 4 per cent stock, and terminable annuities. All the articles included in the contract, bear the denomination of *annuities*.

Principal, and Annual Charge of the Debt at several periods.

	Principal.	Interest and Management.
Debt at the Revolution in 1689,	£ 664,263	£ 39,855
At accession of Anne, 1702,	16,394,702	1,310,942
At accession of George II., 1727,	52,092,238	2,217,551
At peace of Paris, 1763,	138,865,430	4,352,051
At commencement of American war, 1775,	128,583,633	4,471,571
At close of the war, 1784,	249,851,628	9,451,772
At beginning of French wars, 1793,	239,350,148	9,208,495
At close of French wars, 1817,	840,850,491	32,038,291
In January, 1838,	792,306,442	29,461,528

10. *Banks and Currency.* The banking system is very extensive, and in no country in the world is the circulation of money so quick and effective. The Bank of England was chartered by William and Mary, in 1693, and was at first an engine of government, rather than a commercial establishment. It is still connected with the government by large loans. The concerns of the public debt, and the collection of the revenue, are in the hands of the bank. It has an available loaning capital, of about £20,000,000. The system of private banking and discounting, is also very extensive. There are, in London, above 70 private banking houses. These hold, in deposit, a large proportion of the active capital of the country. The daily payments made to these bankers amount, on an average, to £4,700,000.

11. *Taxes.* Almost every article of use, convenience, or luxury, is taxed in Great Britain.* The annual average tax of every individual in England, including women and children, is £3 2s. That of each individual in England, Scotland, and Wales, taken together, is £2 15s.

12. *Foreign Possessions.* Great Britain possesses colonies in all quarters of the world, and her vast dominions circle the globe. In Europe, she holds the small island of Heligoland, lying opposite the mouths of the Elbe and the Weser; the Norman isles, on the coast of France; the fortress of Gibraltar, on the Mediterranean coast of Spain; and the isle of Malta with its dependencies, in the middle of the Mediterranean sea. Beside this, the Ionian islands, also in the Mediterranean Sea, are under her protection. In Africa, she has colonies upon the coast of Guinea, and Senegambia, the large and valuable colony of the Cape of Good Hope, the islands of Fernando Po, Ascension, Tristan d' Acunha, and St. Helena in the Atlantic, and Mauritius, with its dependencies, in the Indian Ocean. In America, the vast regions of New Britain, the Canadas, Newfoundland, Prince Edward Island, New Brunswick, and Nova Scotia; the Bermudas, Bahamas, Jamaica, and other West India islands, with the Guiana colonies in South America, are appendages of this powerful empire. In Asia, her possessions include the greater part of Hindoostan, with Ceylon, large tracts in Further India, Prince of Wales' island, and Sincapore; and in Oceania, New Holland and Van Dieman's Land. The total area of the British Empire has been estimated at upwards of 6,000,000 square miles, with a population of about 156,000,000 of inhabitants.

13. *Church Establishment.* The income of the established church of the United Kingdom exceeds \$40,000,000, being more than that of the established clergy of the whole christian world beside. The income of the bishops varies in different years, according to the number of fines, leases, &c. The income of the Archbishop of Canterbury, who is primate of all England, is about 100,000 dollars, and that of the Bishop of Durham is little less, although provision has been made for the reduction of the latter; that of the Bishop of London is about 65,000 dollars, and those of the bishops of York, Ely, and Winchester, are above 50,000.

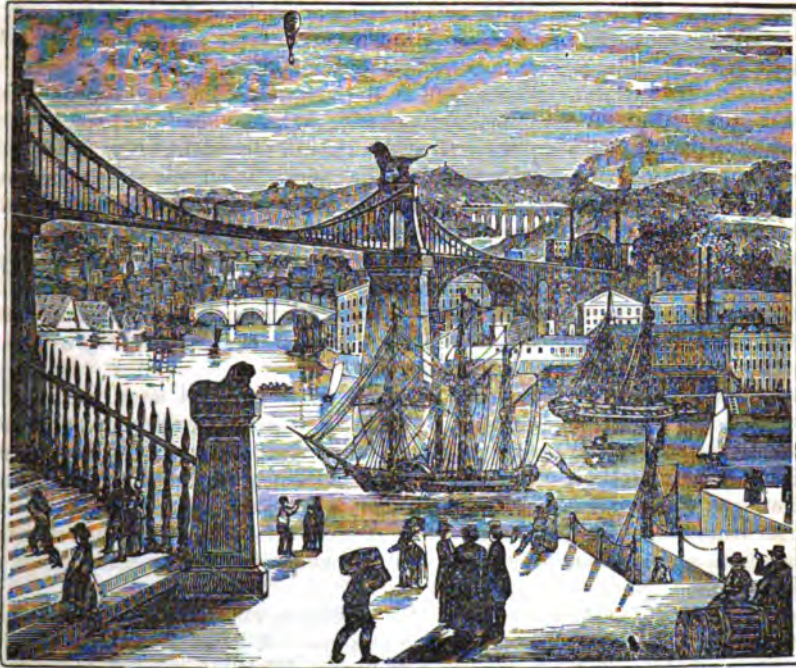
* "Taxes upon every article which enters into the mouth, or covers the back, or is placed under the foot. Taxes upon everything which it is pleasant to see, hear, feel, smell, or taste. Taxes upon warmth, light, and locomotion. Taxes on everything on earth, and the waters under the earth; on everything that comes from abroad, or is grown at home. Taxes on the raw material; taxes on every fresh value that is added to it by the industry of man. Taxes on the sauce which pampers a man's appetite, and the drug that restores him to health; on the ermine which decorates the judge, and the rope which hangs the criminal; on the poor man's salt, and the rich man's spice; on the brass nails of the coffin, and the ribands of the bride. At bed or board, couchant or levant, we must pay. The

schoolboy whips his taxed top; the beardless youth manages his taxed horse, with a taxed bridle, on a taxed road. The dying Englishman pours his medicine, which has paid 7 per cent, into a spoon that has paid 15 per cent; flings himself back upon his chintz bed, which has paid 23 per cent; makes his will on an eight pound stamp, and expires in the arms of an apothecary, who has paid a licence of a hundred pounds for the privilege of putting him to death. His whole property is then immediately taxed from 2 to 10 per cent. Besides the probate, large fees are demanded for burying him in the chancel; his virtues are handed down to posterity on taxed marble, and he is then gathered to his fathers to be taxed no more." — *Edinburgh Review*, vol. 33.

Several of the deans also receive from 15,000 to 20,000 a year, while there are several hundred benefices, of which the incumbents receive less than 200 dollars. There is also a large number of parishes without churches or pastors, while there are no fewer than 70 sinecure rectories.*

CHAPTER III.

ENGLAND.



Public Works of Great Britain.

PHYSICAL GEOGRAPHY.

1. *Boundaries and Extent.* England is bounded N. by Scotland; E. by the German ocean; S. by the British Channel, separating it from France, and W. by St. George's Channel and the Irish Sea, by which it is separated from Ireland. It extends from 50° to 55° $40'$ N. latitude, and from 1° $40'$ E. to 5° $40'$ W. longitude. It contains 58,000 square miles. Wales occupies 7,425 miles of this territory, and forms a part of the western coast.

2. *Mountains.* The general direction of the mountain ranges is from north to south. The *Cheriot Hills*, in the north of England, which is the narrowest part of the island, approach within 18 miles of the sea. The *Cumberland Hills* are a continuation of the same range. Helvelyn and Skiddaw, in this ridge, exceed 3,000 feet in height. The *Welsh Mountains* lie

* *Ecclesiastical Patronage.* The king's patronage is the bishoprics; all the deaneries; 30 prebends; 23 canonries; the mastership of the Temple, &c., and 948 livings. The Lord Chancellor presents to all livings under the value of £20 in the king's books, which are 780, also 21 prebendal stalls; 1,250 places of church preferment are in the hands of the bishops; above 600 in the presentation of the two universities; 57 in the colleges of Eton and Winchester; 800 in the gift of cathedrals and collegiate establishments; and 4,850 in that of church dignitaries, and 6,000 in the gift of the nobility and gentry.

Ecclesiastical Sinecures. The Parochial Clergy are for the most part a mass of sinecurists. In 1814, it was ascertained, that there were 6,311 church livings held by non-residents. Of these, 1,523 employed resident curates, leaving 4,788 totally neglected.

Revenues of the Established Clergy. It is impossible to produce a complete and accurate statement of the reve-

nues of the clergy. The bulk of the ecclesiastical revenues consists of tithes; but, besides these, an immense income is drawn from other sources. The clergy are in almost entire possession of the revenues of the charitable foundations. They hold exclusively the professorships, fellowships, tutorships, and masterships of the universities, and public schools.

Immense landed property is attached to the sees, cathedrals, and collegiate churches. There is also a considerable income from glebe lands, surplice fees, preacher'ships in the royal chapels, teacherships, town assessments, Easter offerings, rents of pews, stipends of chapels of ease, chaplainships in the army and navy, embassies, corporate bodies, commercial companies, &c. Besides which they monopolize nearly all profitable offices in public institutions: as trustees, librarians, secretaries, &c. A member of the established church in Yorkshire has received a yearly income of 900 pounds for teaching *one* scholar.

further south ; the *Snowden* range occupies their centre ; and its chief summit is the highest mountain in England, being 3,570 feet in height. The general elevation of these heights is from 1 to 3 thousand feet. There are several detached groups in the southern and central parts of the kingdom. All these eminences, with little exception, are covered with vegetation, and enclose many sequestered glens, some of them gloomy and solitary, and others interspersed with fertile and romantic valleys, affording the most picturesque scenery. Wales is remarkable for the beauty of its mountain landscapes, and the number of streams and lakes with which it is watered. Most of the mountains of England abound in valuable minerals.

3. *Valleys.* There are no valleys of any great extent. The basin of the river *Severn* is skirted by the Welsh mountains on the west, and by some lofty eminences on the east. The valleys of the smaller streams are too inconsiderable for notice.

4. *Rivers.* The largest river of England is the *Severn*, which rises near *Plinlimmon*, a high mountain in Wales, and flows at first easterly, and then south and southwesterly to the sea. Its embouchure forms a wide bay, called the *Bristol Channel*. It is 200 miles long, and is navigable in the lower part of its course. The tide rolls up this stream in waves 3 or 4 feet high. The *Thames* rises near the *Severn*, in the lower part of its course, and flows east into the German ocean. It is 160 miles long, and is navigable for ships to London, 60 miles. This is the most important river of Great Britain for navigation. The *Mersey* is a small stream flowing southwest into the Irish sea at *Liverpool* ; it is navigable 35 miles. The *Dea* rises in Wales, and flows northwest into the Irish sea near the mouth of the *Mersey*. The *Trent* and *Ouse* rise in the north, and by their junction form the *Humber*, which is a good navigable stream, and falls into the German ocean.

5. *Lakes.* These are small, and would be styled *ponds* in the United States. They are, however, very celebrated for their natural beauty, heightened by cultivation and the charming country seats around them. The largest, and the greatest number, are in the counties of *Cumberland* and *Westmoreland*, near the northern extremity of England. *Winandermere* is about 10 miles long, and from 1 to 2 broad ; it contains several islands. *Ullswater* is somewhat smaller. The handsomest is *Derwentwater*, or *Keswick*, 4 miles in length ; the approach to it, in one direction, is embellished by a beautiful cascade. There are many other small lakes in this neighborhood.

6. *Islands.* The *Isle of Wight* lies upon the southern coast. Its shape is an irregular square, and its surface contains about 270 square miles. A little stream divides it north and south, and a chain of hills crosses it from east to west. The soil is fertile, but the shores are rocky. The *Isle of Anglesey*, or *Anglesea* on the west coast of Wales, is 24 miles long and 17 broad. That part toward the main land is covered with forests, the ancient sanctuaries of druidical superstition, where barrows and heaps of stones remain to remind us of its bloody ceremonies. The rest of the island is naked, but contains a copper mine. The *Isle of Man* lies between England, Scotland, and Ireland ; the nearest is Scotland, which is 20 miles distant. It is 30 miles long, and less than half as broad. A mountain, called *Snefel*, occupies the centre ; the soil is tolerably fertile. Man was long an independent kingdom, but the sovereignty was bought by the British Government, in 1765, to prevent smuggling. Near the southwest extremity of England lie the isles of *Scilly*, known to the ancients by the name of *Cassiterides*. They are 145 in number, but only 5 are inhabited ; the rest are mere barren rocks. Numbers of druidical monuments are found upon them. The *Anglo-Norman* islands lie near the French coast, and constitute the remnant of the British dominion over the ancient Duchy of Normandy. These are *Guernsey*, *Jersey*, *Alderney*, and *Sark*. The largest is 12 miles in length, and they are all well inhabited.

7. *Bays and Harbors.* The largest bay is the *Bristol Channel*, 20 miles wide and 60 in extent. The *Thames*, at its mouth, enlarges to a considerable bay. The *Wash* is a wide bay on the eastern coast. Small harbors are numerous in every part.

8. *Shores and Capes.* The shores are generally rocky, and in many parts are composed of high, chalky cliffs, whose white appearance gave this island in ancient times the name of *Albion*. In some quarters are level, sandy beaches. There are no islands on the eastern coast, and here the shore is bolder than on the west. A long cape, which comprises the county of *Cornwall*, forms the southwestern extremity of England. Its termination is called the *Land's End*.

9. *Climate.* England has an atmosphere of fogs, rain, and perpetual change ; yet the climate is mild. The rigors of winter and the heats of summer are less felt than on the conti-

ment under the same parallel. The winds from the sea temper the extremes of heat and cold ; the changes, however, are sudden. Westerly and southwesterly winds are most prevalent, and also the most violent. Next are the north and northeast. The perpetual moisture of the air is sometimes unfavorable to the crops, but its general effect is to cover the whole island with the deepest verdure. The meadows and fields are usually green throughout the winter ; and the transient snows that occasionally fall upon them are insufficient to deprive them of their brilliancy. Many kinds of kitchen vegetables, as cabbages, cauliflowers, broccoli, and celery, often remain uninjured in the gardens through the winter.

10. *Soil.* Of this, there is every variety ; but the most common constituents of the soil are clay, loam, sand, chalk, gravel, and peat. Mossy soils are very common and extensive in the northern parts, and here are the widest tracts of barren territory. On the eastern coast are extensive fens and marshes. The most fertile districts are in the centre and south. There are also very large heaths and plains, which are nearly unsusceptible of cultivation, and only serve for the pasturing of sheep. On the whole, England may be regarded as not naturally a fertile country.

11. *Geology.* If we pass from Torbay in Devonshire, to the Land's End in Cornwall, and thence northward, along the western side of Wales to Scotland, we shall find all the rocks that border the sea, with the exception of a small extent of the coal strata in St. Bride's Bay, and near Whitehaven, to be either primary or transition, chiefly the latter. Granite, sienite, clay, and other slates, and grauwacke, are here the prevailing rocks. The granite of Cornwall is liable to decomposition, and by the operation of time, several singular phenomena have been formed here, which were once considered the remains of druidical superstition ; such are the Cheese Wring, consisting of a heap of large stones, piled one above another, the upper ones being so much larger, as to overhang them on all sides, and the Logging or Logan stones, which are so poised, as to be easily set in motion. The rocks of the secondary class, however, form

the largest portion of the surface, and the districts composed of them are generally flat and hilly, never assuming the mountainous character, unless where the old red sandstone or mountain limestone appears. From the Tyne to the eastern extremity of Kent, and thence along the southern coast to Devonshire, not a single rock can be found, similar to those that compose the whole western coast ; but they consist chiefly of red sandstone, magnesian limestone, beds of gray limestone, called lias, and of yellowish limestone, called oolite, intermixed with beds of clay, sand, and sandstone, and lastly of chalk. Over the chalk, in a few situations, there are tertiary beds of sand, clay, and limestone, such as compose the harder basin. The primary rocks yield tin and copper, as well as felspar, valuable in the manufacture of porcelain, slates, &c. The lowest secondary rocks, contain lead and iron ; higher up, are the coal measures ; still higher, the rock salt ; while the upper secondary, and the tertiary beds, are more remarkable for their curious organic remains, than for their economical value.

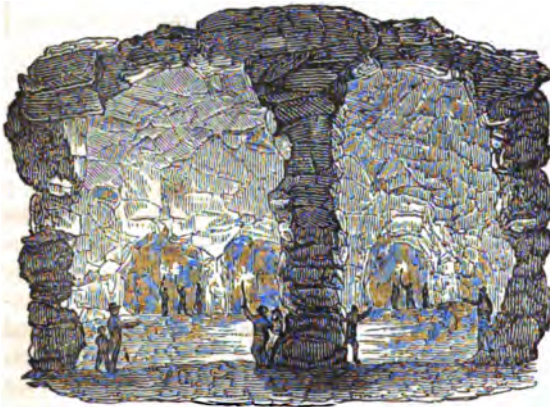
12. *Minerals, Mines, and Quarries.*

Salt and coal are the most common minerals. Coal is most abundant in the north,



Rocking Stone, Cornwall.

but is also plentiful in the central and western parts. Mines of iron and lead are numerous, both in the north and south. In the tin mine of *Carglaize*, in Cornwall, the ore is surrounded by masses of decayed granite, this rock is much softer than the ore, and is washed to pow

*Copper Mine.**Salt Mine at Northwich, England.**Mules carrying Copper-Ore in Cornwall.*

der by the rills of water produced by the rain. The tin mines of Cornwall are very productive, and with those of copper, yield a product of 3,000,000 dollars yearly. The coal mines of Newcastle afford, annually, above 1,500,000 tons of coal, and employ, in the digging and transportation, 70,000 men. The copper mine of Parys, in Anglesey, consists of the greatest solid mass of that metal hitherto discovered. It is 60 feet thick, and worked in the open air, like a quarry. In Cumberland, is a mine of the best plumbago or black lead, in the world. Cheshire produces rock salt in great plenty. This is the Liverpool salt of commerce.

13. *Animals.* The English horse has been greatly improved by crossing with the finest foreign breeds, till in spirit, strength, and speed, he is fully equal or superior to that of any country. The different breeds of sheep, too, have been greatly improved, by the care and skill of the breeder. Dogs of every variety have been naturalized here; but the bull-dog is said to be peculiarly English, and it possesses strength and courage in an extraordinary degree. Of savage animals, since the extirpation of the wolf, which was effected in the reign of James the Seventh, the largest and strongest are the fox and wild cat. The badger is frequently met with, as also the stoat, the martin, of which there are two species, the otter, the squirrel, and the dormouse. Rats are numerous, particularly the brown rat of India, falsely called the Norway rat, which has nearly extirpated the native iron-gray rat. Mice of various kinds are common. The hedgehog is not rare, and the mole is still a nuisance in every rich and well-cultivated field. The stag is yet found in its native state upon the borders of Cornwall, and two species of fallow deer are still preserved. Hares are abundant. The sea-calf and great seal are frequently seen upon the coasts, particularly the coast of Wales.

The larger birds of prey have now almost everywhere disappeared, as indeed they generally do, from a country well-cultivated and well-inhabited. The golden eagle is still found on Snowdon in Wales, and the black eagle is sometimes seen in Derbyshire; but the osprey or sea-eagle, seems to be extinct. The peregrine or foreign falcon, is confined to Wales; but the various kinds of hawks are numerous all over the country. The largest wild bird is the bustard; it is found only in the eastern counties, and weighs from 25 to 27 lbs.; the smallest is the golden-crested wren, which sports in the branches of the loftiest pines. The nightingale, celebrated for its plaintive tones and extraordinary compass of voice, is confined chiefly to the eastern and middle counties, and is rarely observed to the north of Doncaster. The domestic birds of England seem to be wholly of foreign origin; the poultry from Asia, the Guinea fowl from Africa, the peacock from India, the pheasant from Colchis in Asiatic Tur-

key, and the turkey from America. The English reptiles are the frog, the toad, a species of tortoise, lizards of several kinds, and serpents, some of which have been found 4 feet in length. The viper alone is venomous. On the coast are found turbot, dace, soal, cod, plaice, smelt, mullet, pilchards, and herring; the basking-shark sometimes occurs on the Welsh coasts. The river-fish are the salmon, trout, the char, the grayling, the samlet, the tench, the perch, and many other kinds. Various parts of the coast afford shell-fish of different species. The most esteemed oysters are the green oyster from Colchester in Essex, and the white oyster from Milton in Kent. According to Pennant, the number of genera of British animals is 10; of birds 48⁹; of reptiles 4; and of fish 40, exclusive of crustacea and shell-fish.

14. *Mineral Springs.* The most famous are those of Bath, which have been known from the time of the Romans; the Hot Wells of Bristol; and the Springs of Tunbridge, Buxton, Harrowgate, Epsom, Scarboro, Leamington, and Cheltenham. These are much frequented by invalids, and that numerous class of wealthy and fashionable idlers, who swarm in every place of amusement and recreation in England.

15. *Natural Productions.* A few only of the vegetable productions of England are indigenous. The most useful plants have been imported from the continent. The oak is a native tree, and produces timber of the first excellence.

16. *Face of the Country.* The general aspect of England is varied and delightful. In some parts, verdant plains extend as far as the eye can reach, watered by copious streams. In other parts, are pleasing diversities of gently rising hills and bending vales, fertile in grain, waving with wood, and interspersed with meadows. Some tracts abound with prospects of the more romantic kind; embracing lofty mountains, craggy rocks, deep, narrow dells, and tumbling torrents. There are also, here and there, black moors and wide, uncultivated heaths. The general aspect of Wales is bold, romantic, and mountainous. It consists of ranges of lofty eminences and impending crags, intersected by numerous and deep ravines, with extensive valleys, and affording endless views of wild mountain scenery.

POLITICAL GEOGRAPHY.

1. *Divisions.* England is divided into 40 *shires* or counties; and Wales into 12.* These are subdivided into *Hundreds*. The hundred is a division varying in size; it was established probably by the Saxons, originally, it is thought, comprising 100 free heads of families. These are subdivided into parishes. Some large parishes are divided into townships. A *city* is a town incorporated, which either is, or has been, the see of a bishop. Every town, that sends a *burgess* to Parliament, is a borough.

2. *Canals.* Almost every part of England is intersected by canals. Their total number is between 2 and 3 hundred, but many of these are small. Their total length amounts at present to more than 2,600 miles. The longest extends from Liverpool on the Mersey, to Leeds on the Humber, 130 miles, affording a navigation for vessels of 30 tons completely across the island. It has 2 tunnels and many locks. The *Grand Junction Canal* extends from the neighborhood of London, to the Oxford Canal; it is 93 miles long, and has 2 tunnels; one above a mile, and the other nearly 2 miles in length; it has 101 locks. The *Grand Trunk* is a part of the same communication; it is 93 miles in length, and has 4 tunnels, amounting to 2 miles. The *Ashby de la Zouch Canal* is 40 miles long, extending from the Coventry Canal to an iron railway. It has 2 tunnels, 2 aqueduct bridges, and an iron railway branching from it. The *Bridgewater Canal* is 40 miles in length, and extending from the Mersey, divides into 2 branches one terminating at Manchester, and the other at Pennington. This, with the *Trent and Mersey Canal*, forms a communication of 70 miles; 16 miles of this canal are under ground among the mountains. Our limits will not permit us to give further details. The canals of England communicate with one another, and afford immense facilities for internal commerce.

* *Northern Counties.* Northumberland; Cumberland; Durham; Yorkshire, with 3 divisions called *Ridings*; Westmoreland; Lancashire.

Western Counties. Cheshire; Shropshire; Herefordshire; Monmouthshire.

Midland Counties. Nottinghamshire; Derbyshire; Staffordshire; Leicestershire; Rutlandshire; Northamptonshire; Warwickshire; Worcestershire; Gloucestershire; Oxfordshire; Buckinghamshire; Bedfordshire.

Eastern Counties Lincolnshire; Huntingdonshire;

Cambridgeshire; Norfolk; Suffolk; Essex; Hertfordshire; Middlesex; Kent.

Southern Counties. Surrey; Sussex; Berkshire; Wiltshire; Hampshire; Dorsetshire; Somersetshire; Devonshire; Cornwall.

WALES. *North.* Flintshire; Denbighshire; Caernarvonshire; Anglesey; Merionethshire; Montgomeryshire. *South.* Radnorshire; Cardiganshire; Pembrokehire, Caermarthenshire; Brecknockshire; Glamorganshire.

3. Railroads. There is an immense number of railroads in England. This means of communication has greatly extended in a few years. The whole country is intersected by a net work of railroads stretching from London as a centre. The first employment of this species of road, on a public thoroughfare, for the transportation of passengers and merchandise, was in the Stockton and Darlington Railroad in the county of Durham, finished in 1825; and locomotive steam-engines were not successfully used instead of horse-power until several years later. The New Castle and Carlisle Railroad crosses the island from sea to sea. It is 61 miles in length, exclusive of several branches. The Liverpool and Manchester Railroad is 30 miles in length, exclusive of the great tunnels at the Liverpool end. These are excavations, in great part, through solid rock, through which the road passes. The Manchester and Sheffield Railroad is a continuation of the above, and connects it with the Cromford and Peak Forest Railroad which passes over the Peak of Derbyshire. The Manchester and Leeds Railroad is a northern continuation of the Manchester and Liverpool Railway, and is itself connected with the eastern coast by the road from Leeds to Selby. To these, we may add the railroad from Liverpool and Birmingham to London, a distance of upwards of 200 miles, the Eastern Counties Railroad from London, the Western Railroad, from London to Bristol, the London and Southampton Railroad, and many others.

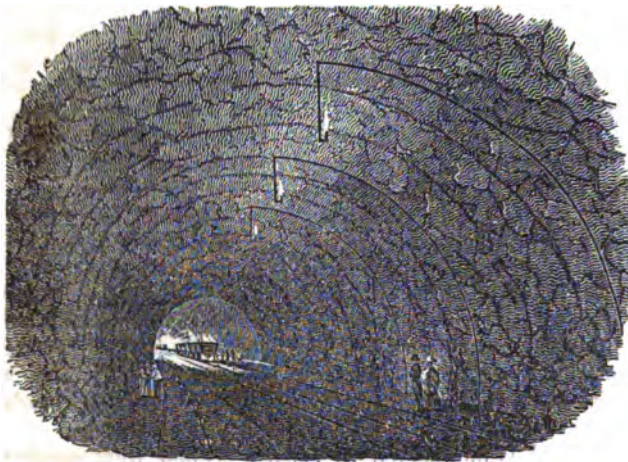
The Liverpool and Manchester Railroad, beginning at Liverpool, enters an open cutting 22

feet deep, with 4 lines of railway, and leading to the mouth of the Great Tunnel, which is 22 feet wide and 16 high. The sides are perpendicular for 5 feet above the floor, and surmounted by a semicircular arch. This tunnel is cut through strata of red rock, blue slate, and clay, and is 6,750 feet, or above a mile and a quarter, in length. The whole extent of this vast cavern is lighted with gas, and the sides and roof are whitewashed, to give a greater effect to the illumination.

The road in the tunnel curves and begins a gentle ascent toward the east. At this extremity, the road emerges into a wide area, 40

feet below the surface of the ground, cut out of the solid rock, and surmounted on every side by walls and battlements. From this area, there returns a smaller tunnel towards Liverpool. Proceeding eastward from the area the traveler finds himself upon the open road to Manchester, moving upon a perfect level, the road slightly curved, clean, dry, free from obstruction, and the rails firmly fixed upon massive blocks of stone. After some time it descends almost imperceptibly, and passes through a deep marl cutting, under large stone archways thrown across the excavation. Beyond this, the road passes through the great rock excavation of Olive Mount, a narrow ravine 70 feet deep, with little more space than suffices for two trains of carriages to pass each other.

After leaving this, it approaches the great Roby embankment, stretching across a valley 2 miles in width, and varying from 15 to 45 feet in height. Here the traveler

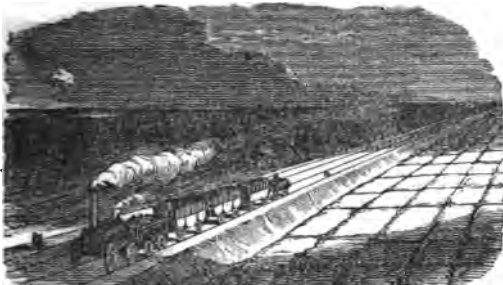


Great Tunnel



Great Rock Excavation of Olive Mount.

finds himself mounted above the tops of the trees, and looks round over a wide expanse of country. The road then makes a slight curve, and ascends an inclined plane a mile and a half long, in a straight line ; but the rise is very gradual. Half a mile beyond this plane, the Liverpool and Manchester turnpike road passes over the railway, on a stone bridge. Beyond this, is an inclined plane, descending as much as the last-mentioned rises. The road then crosses



The Liverpool and Manchester Railroad across Chat Moss.

a marshy tract, and passes over the Sankey valley and canal, by a magnificent viaduct 70 feet high, with 9 arches, each 50 feet span. Beyond this is another bridge, a cut through a hill, a junction with the Kenyon and Leigh Railway, and a wide marsh called Chat Moss. Several other bridges and embankments carry the road into the city of Manchester. The track is double. The rails are of wrought iron, laid sometimes on stone, but, where the foundation is less firm, upon wood. The whole work cost 820,000 pounds sterling.

4. *Cities.* A stranger may approach the city of London by land, or by way of the Thames. In either case, everything is calculated to impress him with the vastness of the capital which he is about to enter. If he is mounted on the top of a stagecoach, and whirls along over the smooth road at the rate of 12 miles an hour, the thickening tide of villas and villages, which seem to swim by him on either hand, announce the vicinity of the great metropolis. Everything now assumes a hurrying, and almost portentous aspect. Multitudes of stagecoaches, loaded with people on the outside, dash by, like the billows that break around a whirlpool, or the waters which are about to rush over a cataract. Tilburys, coaches, and carriages of various forms are passing and repassing. A cloud of dust hangs over the scene, and a loud roar pervades the air. The spectacle has a bewildering effect upon the traveler, and weary, dejected, and oppressed, he reaches the city, which he expected to enter with delight. The voyager, as he enters the Thames and ascends that river is scarcely less affected with the scene. The whole valley on either side is sprinkled with towns, villages, country seats, and palaces. The river is thronged with vessels of every size, and the thousands of sails that are spread before the wind, suggest to the imagination, that the great metropolis has a magnetic power by which it draws them, from every ocean and every sea on the face of the globe, into its harbor.

London lies on both sides of the river Thames. It is 7 miles long, 5 miles wide, and contains an area of about 30 square miles. More particularly, it is considered under 3 divisions: the City proper in the east, Westminster in the west, and Southwark on the south side of the river. The buildings are generally of brick.



Temple Bar.

The streets in some parts are wide, and few are so narrow as not to admit two carriages abreast. At the west end they are mostly straight, and sufficiently broad for 5 or 6 carriages. Here are the residences of the nobility and the rich. Regent street, in this quarter, is probably the most magnificent street in the world. In the city, or the central and oldest part, the streets are narrow and crooked, but here the great business of London is transacted. Temple bar is one of the old city gates. The east end is occupied by shops, victualling-houses, and people connected with commerce. Here are immense timber-yards, docks, and magazines.

London contains a great number of squares, the handsomest is Grosvenor square, an area of 6 acres, and containing an equestrian statue of George the Second. The buildings around it are the most superb in London. The largest square is that called Lincoln's Inn Fields, which occupies a space just equal to that covered by the great pyramid of Egypt. The finest public walks are at the west end ; Green Park, Hyde Park, St. James's Park, and Regent's Park, are beautiful fields or gardens, ornamented with trees ; these are the resort of thousands who

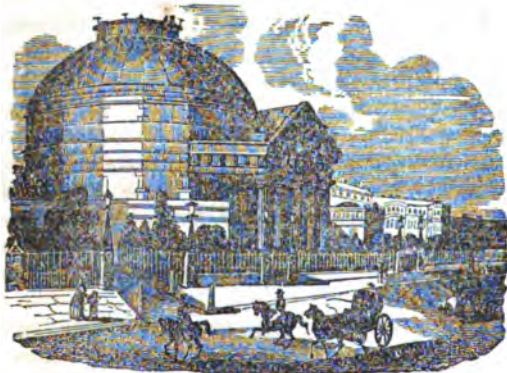


Entrance to Hyde Park Corner.



Statue of Achilles, in Hyde Park.

walk for exercise or pleasure. These parks are very extensive. Hyde Park contains 394 acres, and, in the afternoon of Sunday, is thronged by crowds of fashionable people, who pour along the promenades like the ebbing and flowing tide. In Regent's Park is an immense edifice called the Coliseum, in which may be seen a panorama of London as viewed from the dome of St. Paul's. The gardens of the Zoological Society are also in this Park. They are elegantly laid out, and contain an interesting collection of rare animals from all parts of the world. Adjoining it are Kensington Gardens, also a favorite resort ; Vauxhall Gardens are on the south side of the Thames.



The Coliseum.



Entrance to the Zoological Gardens.



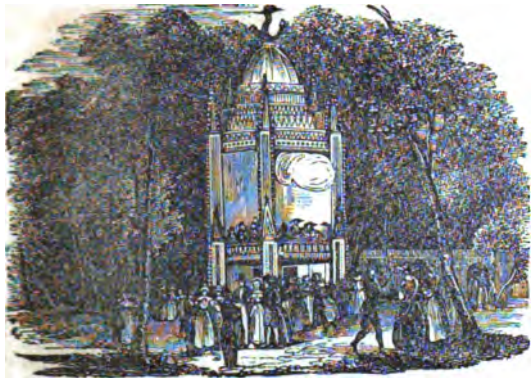
Zoological Garden.



Tunnel Entrance to the Second Garden.

The churches of London have the most prominent and imposing share in its architectural splendor. St. Paul's Cathedral is the most magnificent edifice in the city, but is pent up in a narrow area, and surrounded by shops and buildings of a mean appearance. It is in the form of a Greek cross, with 3 grand porticos. The western portico and principal

entrance is formed of 12 Corinthian columns, on an elevated marble basement, with 8 coupled columns above, supporting a pediment, an entablature representing St. Paul's conversion in



Vauxhall Orchestra.

magnificent window of stained glass, and is very imposing. The exterior of the building is perhaps somewhat deficient in that airiness and beauty which distinguish some of the Gothic edifices of the continent; but the interior cannot be too highly extolled. It is in the form of a long cross; the roof of the nave and cross

aisles is sustained by two rows of arches, one above the other; the lower tier springing from a series of marble pillars, each principal pillar formed by the union of 1 main with 4 slender pillars. It has a vast, airy, and lofty appearance, which inspires feelings of awe and veneration. The chapel of Henry the Seventh, at the east end of the church, is unrivalled for gorgeous magnificence. The city of Westminster and northwestern suburb of London contain many splendid modern churches, almost all in the classic style. London has few public edifices compared to its great size and wealth. Westminster Hall was once a palace; here the kings of England are crowned, and here the parliament hold their sittings. It has the largest



Westminster Abbey.

hall without pillars, in Europe. St. Saviour's is a beautiful specimen of the Gothic architecture. St. James's Palace is an ill-looking, brick building, but contains spacious and splendid apartments. A new palace, called Buckingham Palace, is now building in St. James's Park, with a triumphal arch in front. The Banqueting Hall, in Whitehall, is the remains of a royal palace, which was consumed by fire. At Lambeth, on the southern side of the Thames, is the

palace of the Archbishop of Canterbury, which has been recently rebuilt at a great expense, and with much splendor. The Tower, in the eastern part of the city, is an antique fortress,



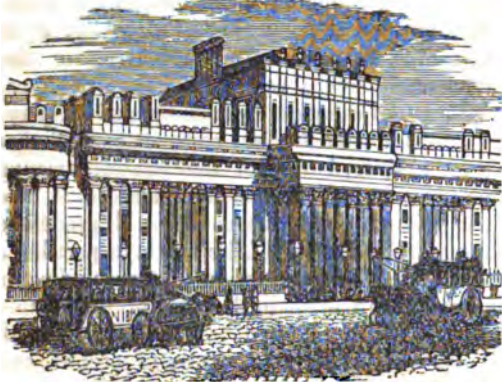
St. Saviour's Lady Chapel.



Buckingham Palace.

palace of the Archbishop of Canterbury, which has been recently rebuilt at a great expense, and with much splendor. The Tower, in the eastern part of the city, is an antique fortress,

which for a long time was a royal residence, and is still used as a prison for state criminals. Within its extensive walls are comprised several armories, containing the greatest collection of arms in the world; the jewel office, in which are kept the crown jewels; a church; the royal menagerie, &c. In the horse armory are the effigies of all the English sovereigns, in armor and on horseback. The Royal Exchange, the Mint, the East India House, the Mansion House, or residence of the lord mayor of London, Somerset House, the Bank of England, the Admiralty, the Custom House, &c., deserve notice. The Monument, a hollow Doric



The Bank of England.



The Admiralty.

column 200 feet high, was erected in commemoration of the great fire, which destroyed a great part of the city in 1666. A stairway in the inside leads to the top.

There are 6 bridges over the Thames. Of these, we may mention Waterloo Bridge, of granite; and Southwark and Vauxhall Bridges, of iron. A more remarkable object is the



The Custom House.

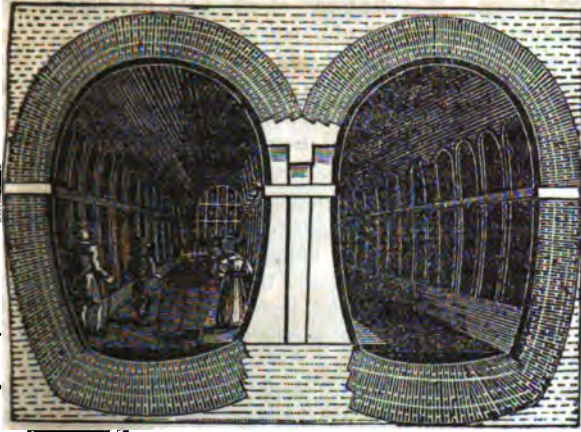


Southwark Bridge.



The Shield.

Tunnel, a passage under the river at a point where a bridge would be too detrimental to the navigation. This work was performed by sinking a perpendicular shaft near the river, and working horizontally under the stream. The laborers in this process were aided by a frame work, called a *Shield*, which prevented the earth from caving in around them, and was pushed forward as the work proceeded. As fast as the excavation was made, the tunnel was formed by mason-work into two arches; and in this manner the work has been carried beyond the middle of the river, although the water has several times burst through. The enormous expense

*View of the Tunnel.**Manner in which the Tunnel passes under the River.**St. Catherine's Docks.*

of the undertaking has caused a suspension of its progress; but it has since been resumed and carried to a successful completion, under the direction of Mr. Brunell, the architect who planned it. This tunnel is now in use and exhibits a work almost without parallel, in ancient or modern times. The engraving below shows the manner in which the tunnel passes under the river.

The wet docks, or basins of water surrounded with warehouses for merchandise, are on a scale commensurate with the wealth and grandeur of the metropolis of the world. The West India docks alone, with their basins, cover an extent of 68 acres, excavated

by human labor, and, including the warehouses and quays attached, cover an area of 140 acres. The East India, London, and St. Catherine's docks are also extensive, but inferior in size to the first mentioned.

The principal institutions for education are King's College, Westminster School, Christ's

Hospital or the Blue Coat School, &c. No city in the world has so great a number of learned societies, and literary and scientific establishments, and none can compare with London in its charities for the poor, the sick, the ignorant, and the suffering. Asylums, hospitals, relief societies, charity schools, and philanthropic associations of every form, combine the efforts of the benevolent to alleviate human misery. The British Museum is one of the richest collections in the world, comprising works of art, cabinets of natural science, and the largest and most valuable library in Great Britain.

London has 13 theatres, of which Drury Lane, Covent Garden, and the King's theatre or Italian Opera, are among the first in Europe. It has 147 hospitals; 16 schools of medicine; as many of law; 5 of theology; 18 public libraries; 300 elementary free schools; 1,700 dispensaries, where the poor receive medicine and attendance gratis; 14 prisons; and 50 newspapers, printing 50,000 daily. 15,000 vessels lie at a time, in the docks and at the wharves; 1,500 carriages a day leave the city at stated hours; 4,000 wagons are employed in the country trade; the annual commerce of the city is estimated at £ 130,000,000 sterling.

The water works, for supplying the inhabitants with water, are calculated to excite wonder at their magnitude. The streets are perforated by upwards of 350 miles of main pipes, through which a daily supply of 30 million gallons of water from the Thames and the New River is furnished. The city is lighted with gas, which is conveyed through nearly 400

miles of pipes, communicating with 80,000 lamps. Manufactures of all sorts are carried on within the precincts of the metropolis, including every article of elegance or utility.

The number of ships belonging to this port in 1830, was 2,663, of 572,800 tons ; and the amount of customs collected 75 million dollars. A statement of the annual consumption of several articles of food will help us to form a conception of the extent of the city ; 8 million gallons of milk, 2 million lobsters, 3 million mackerel, and as many herrings, 1 million quarters of wheat, 20,000 hogs, 160,000 oxen, and 1,500,000 sheep, form but a part of the food consumed here.

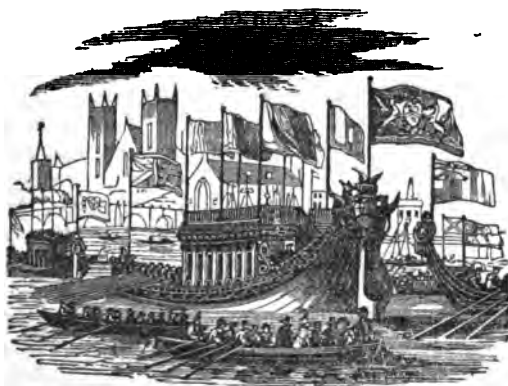
London presents a striking contrast of wealth, intelligence, luxury, and morality, with ignorance, poverty, misery, and vice. The most disgusting and appalling scenes of filth and crime, and the most distressing pictures of squalid wretchedness, throw a dark shade over this picture of human life. Thousands live by theft, swindling, begging, and every sort of knavery, and thousands of houseless wretches here drag out a miserable life, half-fed and half-clad, and sunk to the lowest degree of debasement.

The population of the city is 1,900,000 ; * 20,000 individuals here rise in the morning without knowing how they shall live through the day, or where they shall sleep at night.

Sharps are innumerable. The public beggars, are 116,000 ; the thieves and pick-pockets, 115,000 ; the receivers of stolen goods, 3,000 ; servants out of place, 10,000, and 8,000 criminals are annually sent to prison. It is not a rhetorical exaggeration, but a statistical fact, that every tenth man in London is a habitual and professional rogue.

The head of the corporation of London is styled the Lord Mayor, and his entrance into office is celebrated by the citizens with much pomp.

The environs of London present a succession of beautiful and populous villages and towns, the roads leading to which are thronged by wagons, stagecoaches, and other vehi-



The Lord Mayor's Barges.

* It is impossible by any written description to convey adequate ideas of the real magnitude of London. Indeed, it is not till after a person has been in the city for some months, that he begins to comprehend it. Every new walk opens to him streets, squares, and divisions which he has never seen before. And even those places where he is most familiar are discovered day by day to possess archways, avenues, and thoroughfares, within and around them, which had never been noticed before. Even people who have spent their whole lives in the city, often find streets and buildings, of which they had never before heard and which they had never before seen. If you ascend to the top of St. Paul's church, and look down through the openings in the vast cloud which envelopes the city, you notice a sea of edifices, stretching beyond the limited view that is permitted by the impending vapors. It is not until many impressions are added together, that this great metropolis is understood even by one who visits and studies it. It is not until the observer has seen the palace of the king and the hovel of the beggar ; the broad and airy streets inhabited by the rich, and the dark and dismal abodes of the poor ; the countless multitudes that ebb and flow like the tide through some of the principal streets ; the thousands that frequent the parks and promenades during the day, and other thousands that shun the light, and only steal forth in the hours of darkness. It is not until all these, and many other spectacles have been witnessed ; that he can understand the magnificence and meanness, the wealth and poverty, the virtue and the vice, the luxury and the want, the happiness and misery, which are signified by that brief word, London.

To one disposed to study this metropolis, we should recommend, that at the approach of evening, he should take his station on Waterloo bridge, facing the north. On his right hand lies that part which is called the City,

and which, during the day, is devoted to business. On his left is the west end, where fashion, luxury, and taste hold their empire. At evening, this part of the city is tranquil, or only disturbed by an occasional coach, while the eastern part of the metropolis yet continues to send forth its almost deafening roar. Coaches and carriages, carts and wagons, of every kind, are still rolling through the streets, and, ere the busy scene closes, appear to send forth a redoubled sound. But as the darkness increases, and long lines of lamps spring up around you as by enchantment, the roar of the city begins to abate. By almost imperceptible degrees, it decreases, and finally, the eastern half of the city sinks into profound repose.

But the ear is now attracted by a hum from the west end of the city. At first, a distant coach only is heard, and then another, and another, until at length a pervading sound comes from every quarter, — at midnight the theatres are out, and the roar is augmented. At two o'clock the routs, balls, and parties are over, and for a short period, the din rises to a higher and a higher pitch. At length it ceases, and there is a half hour of deep repose. The whole city is at rest. A million of people are sleeping around you. It is now an impressive moment, and the imagination is affected with the deepest awe. But the dawn soon bursts through the mists that overhang the city. A market woman is seen groping through the dim light to arrange her stall ; a laborer with his heavy tread, passes by to begin his task : a wagoner, with his horses, shakes the earth around you, as he thunders by. Other persons are soon seen ; the noise increases, the smoke streams up from thousands of chimneys, the sun rises, and while the west end of London remains wrapped in silence and repose, the eastern portion again vibrates with the uproar of business.

cles, horsemen, and glittering equipages, and lined with handsome houses, so that it is difficult for the traveler to determine where the metropolis may really be said to end. Immediately above and adjoining Westminster is *Chelsea*, with 40,000 inhabitants, containing the great national asylum for invalid soldiers, connected with which is the royal military asylum for the education and support of the children of soldiers. Directly north lies *Kensington*, with 25,000 inhabitants, the beautiful gardens of which, belonging to the palace, adjoin Regent's Park.



Richmond.

which are the mausoleum of the royal family, a vast park and gardens, and a forest 50 miles in circuit. Opposite to Windsor is *Eton*, with the celebrated college, in which so many distinguished men have been educated. Near the latter place is the little village of *Slough*, once the residence of the famous Herschel, who here erected his great telescope, 40 feet in length.

Below London are *Deptford*, *Greenwich*, and *Woolwich*, now forming one borough, with a population of 76,000. Deptford is noted for its royal dock-yard and immense warehouses; there are also a number of private ship-yards, in which are built many merchantmen. Greenwich contains the great Naval Hospital for infirm seamen, with which a naval asylum for the education of the orphan children of seamen is connected. It was formerly a royal residence, and Queen Elizabeth was born here. Here, also, is the royal observatory, celebrated in the history of astronomy for the valuable observations made from it, and for being in the prime meridian of English geographers. Woolwich is remarkable for its spacious dock-yard, its vast arsenal for ordnance, including an extent of 60 acres, its royal military academy, its extensive barracks, and laboratory; &c.

Liverpool, the second commercial town in England, situated near the mouth of the Mersey, is well built, with spacious and regular streets, pretty squares, and handsome houses. The public buildings are elegant; among them are the town hall, the custom house, exchange, market, &c.; the churches, chapels, and



View of Liverpool.

meetinghouses are numerous and handsome, and the charitable institutions are numerous and well conducted. But the most remarkable feature of Liverpool is its vast docks, of which there are 8, with an area of 92 acres. These, with the wharves and warehouses, extend in an immense range along the river, while the opposite quarter of the town is prolonged into numerous suburbs, composed of the villas and country houses of the wealthy. The trade of Liverpool is very extensive, being exceeded by no place in the world but London. The most important branch is the trade with Ireland; next, that with the United States, more than three fourths of the trade of this coun-

try with England centering in Liverpool. Cotton is the staple article of the Liverpool trade,

and of 1000,000 bales imported into England annually, no less than 900,000 are brought into this port.

An extended system of canals opens a water communication with the North Sea, and with the inland counties. The shipping belonging to this port, in 1830, amounted to 161,780 tons. The manufactures, which are extensive, are chiefly those connected with shipping and the consumption of the inhabitants. They comprise iron and brass foundries, breweries, soap works, sugar refineries, ship-building, watch and instrument making, &c. Population, in 1831, 165,171, in 1841, including the suburbs, 286,000. In the beginning of the last century, Liverpool was an insignificant village; her merchants then engaged in the American and West India trade, and the growth of the manufactures of Manchester promoted its increase. The chief portion of the African trade also centered here, and more recently, the trade with East India has been rapidly increasing.

Thirty-three miles east of Liverpool, with which it is connected by a railroad, stands *Manchester*, a great manufacturing town, whose population is inferior only to that of London. The number of inhabitants is 250,000, or, including Salford and the immediate neighborhood,



Manchester.

296,000. It presents nothing remarkable in an architectural point of view; the streets are filthy and narrow, the houses and buildings in general mean, and the great mass of the people poor. It is, however, the centre of the great cotton manufacture of England, and various other manufactures are carried on here, which consume great quantities of the coal abundant in the neighborhood. There were upwards of 300 steam engines, and 30,000 looms here, in 1828.

To the north of Manchester, lies *Bolton*, also a great manufacturing town, with 33,000 inhabitants, and *Rochdale*, noted for its great flannel

manufactures, with 68,000 inhabitants. To the south is *Oldham*, with its slate quarries, its coal mines, and its extensive cotton and woolen manufactures, and containing a population of 42,000. *Ashton*, 46,000 inhabitants, and *Stockport*, 28,000, also have extensive manufactures.

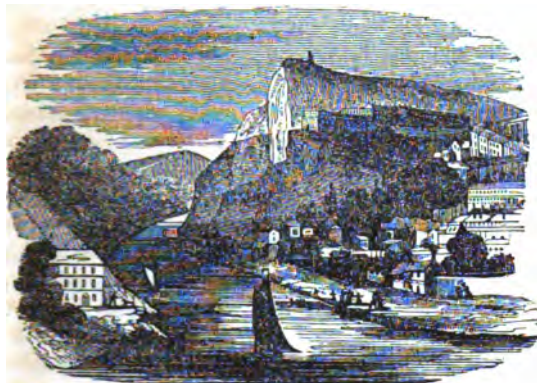
Birmingham is the second of the great workshops of the British empire. Here is made every sort of articles of hardware, whether curious, useful, or ornamental, from the more ponderous productions of the rolling mill and casting furnace, down to polished watch-chains and delicate instruments. Buttons, buckles, trinkets, and jewelry, plated, enamelled, japanned, and brass works of every description, steam-engines, pins, swords, and fire-arms, &c., are here produced. The manufactures are upon the largest scale, and constructed with the greatest ingenuity. Steam is the chief moving power. The town, although in the centre of the country, is connected with the different coasts by means of canals, through which its various productions are sent to all parts of the world. The lower part is composed of crowded streets and mean buildings, but the upper part has a better appearance. Population, 182,000.

Wolverhampton, about 15 miles from Birmingham, is also distinguished for its extensive manufactures of hardware. The whole country between the two places, is a little more than a succession of collieries, iron mines, forges, and cabins, black with smoke. The borough of *Wolverhampton* includes several townships; the population of the town is 36,000.

Leeds, a large trading and manufacturing town of Yorkshire, is situated on a navigable branch of the Humber, and is connected with Liverpool by a canal. The old part of the town is dirty and crowded, but the modern streets are spacious and handsome. Leeds is not only the principal seat of the woolen manufactures and trade of the kingdom, but it also contains foundries, glass works, and linen manufactures. Here are 30 churches and meetinghouses, 2 great wool markets, called the White Cloth Hall, with 1,200 shops, and the Mixed Cloth Hall, with 1,800, a bazaar, theatre, &c. Population, 152,000. In the neighborhood, are

Wakefield, with 26,000 inhabitants; **Huddersfield**, 25,000; **Halifax**, 20,000; and **Bradford**, 34,000, all great woolen marts, and having large piece or cloth halls for the sale of woolen goods. **Bradford** also contains large founderies.

Bristol is a very old city, situated near the confluence of the Avon and the Severn, and is accessible for vessels of 1,000 tons. The old town is irregularly built, with narrow streets and mean houses, but the modern part of the city is laid out with spacious streets and squares, and contains many handsome buildings. Its foreign trade is considerable, and its distilleries, sugar refineries, glass works, and brass works are extensive. The cathedral, several churches, the council-house, commercial rooms, &c., are among the principal public buildings. There are extensive wet docks here. Population, 122,000. **Clifton**, near Bristol, built on St. Vincent's Rock, is celebrated for its mineral waters.



Clifton.

Sheffield is a well built, and flourishing manufacturing town, but the smoke of its numerous manufactories gives it rather a sombre appearance. It is noted for the excellence of its cutlery, which is also made in all the surrounding villages. The manufacture of plated goods is also extensive, and there are numerous large iron founderies in the town and vicinity. Population, 68,000.

Newcastle, a large trading and manufacturing town, is a place of great antiquity, and of considerable note in history. It is situated upon the Tyne, 10 miles from the sea, and is accessible to large vessels. The

collieries in the vicinity employ 40,000 men, and have for centuries supplied the eastern and southern parts of the island, and, in part, the opposite coast of the continent, with fuel. Upwards of 800,000 chaldrons are exported annually. Lead is also exported in large quantities. The glass works and iron works here are very extensive, and ship-building, the potteries, and various manufactures of hardware employ many laborers. In point of tonnage, **Newcastle** is the second port in England, its shipping amounting to above 200,000 tons. The town is well built, and contains many handsome streets and edifices. Population, 49,000. At the mouth of the river lies **Tynemouth**, with 25,000 inhabitants.

Sunderland is a thriving town near the mouth of the Wear, in Durham county. It is the fourth port in England in point of shipping, which amounts to 108,000 tons. It is the depot for the coal trade of the valley of the Wear, which employs 30,000 men, and furnishes annually 560,000 chaldrons. The glass works are extensive, and ship-building is also an important branch of the industry of the inhabitants. Population, 17,000.

Kingston-upon-Hull, generally called **Hull**, stands upon the Humber, and has the greatest inland trade of any English port. Its foreign trade is also extensive, and it is the chief place in England for the whale fishery. The harbor is artificial, and Hull is remarkable for its fine quays and its extensive docks, which cover an area of 23 acres. The shipping amounts to 72,250 tons; population, 41,000. A few miles above Hull, is the port of **Goole**, which has recently become an important trading place, by the construction of extensive docks, ware houses, and basins.

Norwich, an ancient and populous city, has been, for several centuries, noted for its woolen manufactures, to which, in later times, have been added those of cotton, linen, and silk. The castle and the cathedral are the most remarkable buildings. Population, 62,000.

Yarmouth, formerly the port of Norwich, has been one of the stations of the British Navy, and presents one of the finest quays in the world, upwards of a mile in length. But in consequence of the obstructions in the navigation of the river Yare, between Yarmouth and Norwich, a canal, navigable by sea-borne vessels, has been made from the latter place to Lowestoft, where an artificial harbor has been constructed, capable of admitting large ships. Population of Yarmouth, 24,000.

Dover, on the coast of Kent, is an old town, which gives its name to the straits, separating



Dover.

England from the continent. It acquires importance from the historical recollections connected with it, and from its extensive military works, among which is the castle, built upon a lofty cliff, rising 320 feet above the sea. Population, 14,000. To the north, between the coast of Kent and the sandbank called *Goodwin Sands*, is the celebrated road called the *Downs*, which affords safe anchorage for ships, and is a rendezvous for the British fleet in time of war.

On the channel stands *Bright-helmstone*, or *Brighton*, a famous bathing-place, remarkable for the elegance, richness, and variety of its architecture. Population, 47,000.

Portsmouth is the chief naval station in Great Britain, and one of the strongest fortified places in Europe. The harbor is the first in the kingdom for depth, capaciousness, and security, being deep enough for the largest ships, and of extent sufficient to contain the whole navy of England. The famous roadstead of *Spithead*, between Portsmouth and the Isle of Wight, can accommodate 1,000 sail of vessels in the greatest security. The dock-yard, which is the grand naval arsenal of England, and the general rendezvous of the English fleet, is the largest in the world, including an area of 100 acres. Population 53,000. *Cowes* is



Dover Castle.

a safe harbor on the northern coast of the Isle of Wight, a little west of Portsmouth. *Southampton* is the rendezvous of the West Indian and continental mail steamers.

Plymouth, one of the finest harbors in the world for security and capacity, is also an important naval station. The fortifications and barracks are extensive, and the Royal dock-yard is on a very large scale. The Breakwater, a vast mole 1 mile in length, stretching across the entrance of Plymouth Road, an Eddystone Lighthouse, built upon rocks lying off in the Channel, are the most remarkable works of the kind in the world. The lighthouse is 80 feet

in height, yet such is the swell of the ocean, caused by meeting the rocks, that it dashes up over the summit of the tower. Population of Plymouth, including the adjoining town of Devonport, 68,000.

The city of *Exeter* is the capital of Devonshire, and was once the residence of the Saxon kings. Its cathedral is a magnificent Gothic structure. Population, 23,200.

Salisbury, the capital of Wiltshire, is also an Episcopal city; the spire of its celebrated cathedral is the highest in England, exceeding 400 feet. Salisbury Plain is an extensive tract of level, unwooded country, chiefly used as a sheep-walk, and containing the famous ruin, called Stonehenge. Salisbury has 10,000 inhabitants.



Exeter.

Winchester, the chief town of Hampshire or Southampton, and an Episcopal city, is a place

of historic interest. It was once the metropolis of England, but, since the suppression of the monasteries by Henry the Eighth, it has much declined. Its fine cathedral and its ancient college are still celebrated. Population, 11,000.

The ancient city of *Canterbury*, in Kent, with 15,300 inhabitants, is the see of an archbishop, who is primate of all England, and first peer of the realm. Here was formerly the magnificent shrine of Thomas à Becket, a Roman Catholic saint, to which pilgrimages were made from all parts of the kingdom. The *Canterbury Tales* of the famous Chaucer, the father of English poetry, describe the manners and characters of the pilgrims of his age.

Bath, near Bristol, is an episcopal city, but is chiefly known as a watering-place; its mineral waters have been celebrated for many centuries, and, combined with its delightful situation, have rendered it a favorite place of resort. The elegance of its streets and the magnificence of its public buildings, — its cathedral, its churches, its hospitals, and its baths, entitle it to be considered the handsomest city in England. Population, 38,000.

Gloucester, an episcopal see, and chief place of a county, is noted for its extensive manufacture of pins, which, minute as is the article, employs 1,500 persons. It contains a fine cathedral, and has a population of 14,000. In the vicinity is the borough of *Stroud*, with 42,000 inhabitants, engaged principally in the woolen manufacture. The dyers here are celebrated for the excellence of their scarlet and dark-blue colors, which is attributed to the superior qualities of the waters of the Frome, here called Stroud water.

Cheltenham, delightfully situated to the northeast of Gloucester, a few years ago an inconsiderable village, is now a flourishing town with 31,000 inhabitants. Its sudden growth is owing to its medicinal waters. *Wexbury*, a small town in the neighborhood, once contained a celebrated monastery, and was the scene of a bloody battle during the war of the roses.

Oxford, an episcopal see and capital of a county, though a small city, is equalled by few in architectural beauty. It is delightfully situated, in a luxuriant country on the banks of the Isis and Cherwell, and contains a celebrated University, which surpasses all similar establishments in the wealth of its endowments, the extent of its institutions, and the splendor of its buildings. The edifices belonging to the university are 19 colleges and 4 halls, the theatre, in which the public exhibitions are held, an observatory, the Bodleian library, one of the richest in Great Britain, a botanic garden, &c. The city is of great antiquity, and has often been the residence of the English kings, and the seat of the Parliaments. Population, 24,000.

Cambridge, also an episcopal see, and the seat of a university, contains 24,000 inhabitants. The university buildings are 13 colleges, 4 halls, and the senate-house, some of which are remarkable for the magnificence of their architecture. There are also an observatory, a valuable library, &c. here. *Newmarket*, in the vicinity, is celebrated for its races.

Nottingham is a large and flourishing manufacturing town, situated upon the Grand Trunk canal, and having a water communication with Liverpool, Hull, and London. Its picturesque situation, its neat and spacious streets, and handsome square, rank it among the prettiest towns in England. Its staple manufacture is that of stockings; lace and glass are also made extensively. Population, 53,000. *Leicester*, with 48,000 inhabitants, is also noted for its



City of Oxford.

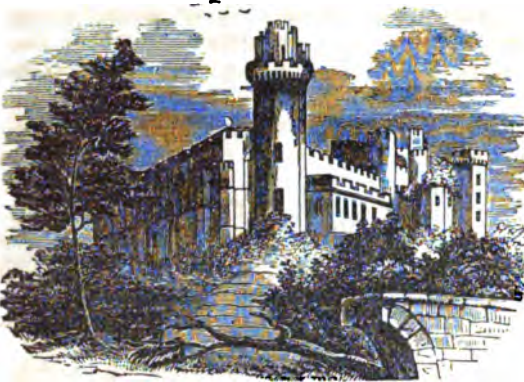


Peak Cavern.

extensive manufacture of stockings, and *Derby*, with 33,000 inhabitants, is distinguished for

its manufactures, particularly of silk, porcelain, spar, &c. The Peak cavern in the vicinity is much visited.

Coventry, a city of considerable antiquity, in which the English kings have occasionally resided and held their parliaments, contains some interesting edifices. It carries on manufactures of ribands and watches, and a great fair of 8 days is held there. Population, 31,000.



Warwick Castle.



Ruins of Kenilworth Castle.

Warwick, a small town in the neighborhood, is a place of great antiquity, and contains a fine castle. *Kenilworth*, an inconsiderable place in this vicinity, is celebrated for its magnificent castle and park, the former of which is now in ruins. It formerly belonged to the crown, but Elizabeth gave it to her favorite Dudley, Earl of Leicester. The area enclosed within the walls of the castle was seven acres, and the circuit of the park and chase was no less than 20 miles. *Leamington*, in this neighborhood, which ten years ago was an insignificant village, is now a favorite watering-place, and has become a considerable town.

Worcester is a city of much historical interest. Its trade is considerable, and the porcelain and glove manufactures are extensive. The cathedral is its principal edifice. Population, 18,600. *Kidderminster*, in the neighborhood, has been long noted for its woolen manufactures, the most important branch of which is that of carpets. Population, 26,000.

Shrewsbury, the chief town of Shropshire or Salop, is a place of great antiquity and of historical importance. The ruins of the ancient castle and of the celebrated abbey, which once contained the shrine of St. Winifrid, and was much visited by pilgrims, are still visible. *Shrewsbury* has considerable trade and some woolen manufactures. Population, 23,000.

Litchfield, a city of Staffordshire, contains a magnificent cathedral, and a grammar school, at which were educated Addison, Johnson, and Garrick. Population, 6,500. In the northern part of the county is the borough of *Stoke-upon-Trent*, comprising several townships, in which are the celebrated Staffordshire potteries. The porcelain and other ware, made here, are well

known for the taste displayed in the forms, as well as for the excellence of the workmanship. Population of the borough, 46,000.

Lincoln, a city formerly distinguished for its splendid ecclesiastical establishments, and interesting as the scene of some important historical events, is now much declined. Its cathedral is one of the largest in the kingdom. Population, 16,000.

York, one of the oldest cities of England, is the see of an archbishop, and ranks as the second city of the realm. It formerly contained a great number of churches and a wealthy abbey, and its cathedral, styled York minster, is a magnificent edifica-

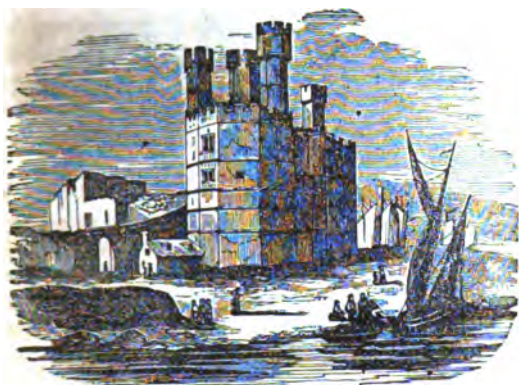


Dropping Well, Knaresborough,

Population 29,000. The curious dropping well of Knaresborough is in this vicinity.

Carlisle, the county town of Cumber-land, is an ancient city, defended by walls and a castle. Population, 23,000. **Whitehaven** is an important place in the same county, the coal mines in the vicinity of which give it an active trade. Population, 12,000. In **Lancashire** are **Lancaster**, the county town, with 12,000 inhabitants, and **Preston**, a thriving town, with extensive cotton manufactures, and 50,000 inhabitants. **Chester**, the county town of Cheshire, with 23,000 inhabitants, is a city of some note in history, containing a cathedral and a fine castle. **Durham** is also an episcopal see. Population, 14,000. **Berwick-upon-Tweed**, situated on the frontiers of England and Scotland, became famous in the frequent wars between the two countries. It is regularly fortified, and was at one time declared a free town. It is now included within the limits of England.

The Welsh towns are mostly inconsiderable. **Swansea** is a thriving trading town on Bristol Channel, with 17,000 inhabitants. **Caernarvon** is interesting from its fine old castle. **Merthyr**



Caernarvon Castle.



Devil's Bridge.

Tydvil has lately become important on account of its extensive iron works. The whole neighborhood is filled with iron and coal mines and forges, furnishing annually 50,000 tons of iron. Population, 35,000. **Milford Haven**, on the western coast, is distinguished for its fine harbor, and a royal dock-yard has lately been established here. **Cardigan** is a small old town, which carries on a considerable trade. In the vicinity is the Devil's Bridge, an arch thrown over a deep, rocky chasm, at the bottom of which rolls the Mynach, after rushing down three lofty cascades.



Field Pea.



Tare

crop. Saffron, which was formerly cultivated in various parts of the kingdom, is now grown almost solely in Essex; another singular product of Essex, is a kind of treble crop of corian

der, carraway, and teasle, the two first on account of their aromatic seeds, the last for its prickly heads, used by the manufacturers in raising the nap on woolen cloths.



Saffron.



Coriander.



Teasle.

6. *Commerce.* The commerce of England is unrivaled by that of any other nation in the world. Every quarter of the globe seems tributary to the enterprise and perseverance of this great commercial people. It has been usual to consider the commerce of England as connected with that of Scotland and Ireland; we therefore refer the reader to the view of the commerce of Great Britain for further particulars.

7 *Manufactures.* The manufactures of England far surpass, in amount and variety, those of any other nation that has ever existed; and form the most astonishing display of the fruits of human industry and skill. The vast numbers of people employed in them, give no adequate idea of their immense extent, as the great perfection to which labor-saving machinery is carried in England, enables one man to do the work of 150. The cotton manufacture alone would have required, half a century ago, 50,000,000 men. The power employed in the manufacture of cotton alone, in Great Britain, exceeds the manufacturing powers of all the rest of Europe collectively. The most important branches are cotton, woolen, silk, linen, and hardware.

In the northern counties of England, are great manufactures of broadcloth and every other kind of woolen goods, principally in the West Riding of Yorkshire, at Leeds, Wakefield, Bradford, Halifax, and Huddersfield. Sheffield has manufactures of cutlery and plated goods. Manchester, and its neighborhood, is the great seat of the cotton manufacture.

In the midland counties, are the Cheshire manufactures of silk, cotton, linen, iron, and china-ware. The stocking manufactures of Nottingham; the woolen of Leicestershire; the pottery of Staffordshire; the hardware of Birmingham; the ribands of Coventry; the carpeting of Kidderminster; the broadcloth of Stroud. Flannels are the chief article of Welsh manufacture. In the southern counties are the cotton, paper, and blankets of Berkshire; the flannels of Salisbury; the cordage of Dorsetshire; the woollens of every sort in Devonshire; and every kind of goods, particularly the finer articles of upholstery, jewelry, and every material of luxury, are manufactured in and about London. For further particulars, see the general view of the manufactures of Great Britain.

8. *Inhabitants.* Among the inhabitants of England are very few foreigners, and these are mostly in the seaports. The stock of the present English was various: the original islanders have been mixed at different times, by means of conquest, with the Romans, the Saxons, the Danes, the Goths, and the Normans. There are but few of the people called Gypsies, but there are many Jews, chiefly resident in London. Negroes are seldom seen, and what few there are, are much prized as servants. They are not degraded in public estimation, as in the United States, and a decent white female is sometimes seen leaning on the arm of a negro. In person, the English are robust, and they have clear and florid complexions. The higher classes, from the prevalence of athletic exercises, are among the best specimens of the human

form. Generally, in other countries, the higher orders are less hardy and athletic than the lower, but it is the reverse in England. The human race dwindles not, either in mind or body, in England. On the whole, the English may be pronounced the handsomest and best formed people on the face of the earth. They are, perhaps, in the average, nearly an inch shorter than the Americans.

9. Classes. In England, the nobility are a highly privileged class. They are comprised in the following orders: — Dukes, Marquises, Earls, Viscounts, Barons. The Baronets have an hereditary title; the Knights have not. Knighthood is a common reward of public service. The Bishops, and other dignitaries of the church, constitute a favored class. The distinctions of the two general classes of men, the rich and the poor, are far greater than in other countries. The wealth of the world seems to be brought into England, as it once was to Rome; but there is no country where poverty is so general and so hopeless.

10. Dress. The general costume of the English is neat and convenient. In fashionable life, the fashions are constantly changing, though more in details than general forms. This variableness of taste has been expressed in a picture of an Englishman without his coat, but holding his cloth and shears as in doubt what fashion to make it in; or unwilling to cut it at all, lest the fashion should change before the coat were finished. The general mode of dress is that which we adopt from England, in the United States; though some of the more extreme fashions do not cross the Atlantic. The Americans, however, indulge in some anomalies of dress, that would not be tolerated in London. The changes of English dress seem to have been exhausted, and there is nothing new in it that has not once been old. The same garments have indeed been used at every era; and the change operates chiefly on the forms of these. At one time the collar is low, at another it is raised; the skirts are varied in length and breadth, and the waist is sometimes long, and at others short. If an Englishman is obliged by change of fashion to sacrifice a good coat for the present, he may lay it by, and be sure that in time it will come again in fashion. The mail-coach guards wear the royal livery, which is scarlet and gold. The clergy wear generally a large hat, and some have wigs, but the time is past when a wig was "supposed to be as necessary a covering for a learned head, as an ivy bush for an owl." In wet weather the women who go abroad, wear clogs, raised an inch or two from the ground, and these make a great clattering on the pavements. In London, there is, every day, a Rag Fair, where the lower class may buy a dress according to their means. It is held principally by the Jews, who go about buying old clothes, which they display at the Fair. The dead are buried in woolen, to encourage agriculture and manufactures.

The Welsh, though they have long lived under the English government, still remain an unmixed race, and adhere to the customs of their forefathers. The higher-class dress like the



Ancient Welsh Harpers

English; but in more humble ranks the national costume is preserved, which, for both men and women, is composed of home-made woolen cloth. The coat, breeches, and stockings of the men are always blue, and their waistcoats red; their shirts are of blue or red flannel, except in some parts of the northern counties, where they are striped. The common dress of the females in South Wales consists of a jacket made tight to the shape, and a petticoat of dark brown or striped linsey-woolsey, bound with different colors. Young women wear mop-caps pinned under the chin, and small, round felt or beaver hats like the men. The elder women commonly wrap up their heads in two or three colored handkerchiefs, over which they put a large felt hat. Both young and old

throw a scarlet whittle across their shoulders, which completes their dress. In North Wales the costume is similar, except that the whittle is superseded by a large blue cloak, descending nearly to the feet, which is worn at all seasons, even in the hottest weather. Linen is rarely used; flannel being substituted in its place; nor are shoes or stockings worn, except sometimes in fine weather, and then they are carried in the hand, if the woman be going any dis

tance, and put on only at, or near the place of destination, the feet being first washed in a brook.

11. *Language.* The English language is, in many parts of England, so perverted, that it can hardly be understood by one who knows it only as it is written ; in Wales, the Welsh language is the medium of communication between the common people, many of whom understand no other. In general, the English language is preserved in greater purity as spoken in the United States, than in England itself. We have, as has been elsewhere remarked, no *patois*, and our Americanisms are generally words to express something peculiar in our state of society, and for which there was no previous English word ; while in London, the common class of people wantonly perpetrate more outrage upon the orthodox English, than is committed from necessity in the United States. The language of the common people in different counties in England, varies so much, that the inhabitants can with difficulty understand each other. An American, in Yorkshire, or Lancashire, cannot much better understand the common people than if they spoke a foreign language. Besides these dialects, the *flash* language, as it is called, is extensively used by gentlemen of the *Fancy* ; and it is affected by many others. It consists in new, and often ludicrous, or witty names, given to everything that relates to horseracing, boxing, gambling, drinking, and other modes of dissipation. Thus the worst crimes have often a pleasant name, and the most shocking scenes are deprived of their revolting character by the light language in which they are described.

12. *Manner of Building, &c.* The manner of building among the rich in England, is not so much national, as it is a collection of all that is national in other countries, or of what remains of former ages. Costly and magnificent piles of architecture are spread over the whole country, and there is scarcely a neighborhood that has not some edifice that attracts the visits of travelers. The Gothic, the Grecian, the Chinese, the Saracenic, the Egyptian, and various other styles of building for which art has no name, are found in England. The

convenience of an Englishman's house is unrivalled ; everything is perfect in its kind ; convenience is more studied than economy, and there is not a door or a window that is not jointed with the nicest art. The very farmhouses have an air of neatness and comfort, that makes no part of the picture of the farmer's dwelling in the United States. The walls are covered with creeping and flowering plants. The roofs are frequently thatched with straw, and in some of the older towns, whole streets of thatched houses may be seen.

England is the country of unequal wealth, and the cottage of the poor is strongly contrasted with the mansions



English Farm-House

of the rich, yet if there is luxury in one, there is often comfort in the other. The cottages are both of brick and stone, and though small, they are neat. The villages are generally old and dingy. Every family occupies a separate house, and a traveler may go far, without seeing an old hat in a broken window. On the houses of the rich no expense is spared. Their country seats are generally at some little distance from the road, and they are often approached through plantations of trees. The grounds are not fancifully laid out, but art only appears, the better to display nature and not to do violence to it. It is in the country mansion that the wealthy part of the English are seen to the best advantage, and here they lead a life, that may well be envied

13. Food and Drink. The "roast beef of old England" * is indeed a palatable and invigorating food, and it is a pity that any should want it ; but the laborer who fattens the ox, seldom tastes the beef. The poorest of the laborers and manufacturers cannot have in the week as much animal food as the American laborer consumes in a day. In other respects, the kind of food is similar, and the potato is general with both. The price of beef is from 9d. to 1s. and 6d. sterling, the pound. Mutton is from 7d. to 10d. Common fowls are from 8s. to 15s. a pair ; turkeys, 10s. and 9s. each, and geese, 6s. Butter is from 1s. to 1s. 6d. a pound, and eggs are from 20d. to 3s. a dozen. Rabbits are 1s. a piece. The common wages of a day laborer are 1s. 6d. to 2s. Country wages are by the year : £15 to £20, for men, and for women, from £3 to £9. The wages of manufacturers are much higher.

The English consume much more animal food than the French, and the number of sheep consumed in London is about three-fourths more than in Paris. The number of rabbits consumed is immense ; one person alone, in London, sells 14,000 weekly ; they are sent in from all parts of England. Immense numbers of geese are driven from Lincolnshire. Drove of 2 and 3,000 are common, and even 9,000 have been seen in 1 drove. The poor in England have little beyond the bare necessities of life, and many are supplied with these by the parishes. In seasons of scarcity, there is, what is never known in the United States, a famine, and riots are the consequence. The lot of the rich is more enviable ; the commerce of England brings them the productions of every climate, and wealth enables them to rear, even in England, the fruits of the tropics. Turtles are brought from the West Indies, and salmon packed in ice from Ireland and Scotland. The growth of peas and other vegetables is forced in hot-houses, and peas are often sold at a guinea a quart. The best of pine-apples and grapes are produced by careful cultivation. The wines of Portugal are the most used, from the commercial relation of the two countries, but all wines are dear. A bottle of the ordinary wine cannot be had for less than a dollar, and the price is often greater. "Superior-London-picked-particular-East-India-Madeira wine" is advertised, and every epithet of it, says Southey, must be paid for. Of course, adulterations must be common, and a brisk business is carried on in making wines of mixtures which are often deleterious. Cider is much used, and in many places it is the common drink. There is a good deal of perry consumed ; but the great national beverage is beer or porter. The quantity made is enormous ; Barclay & Co., alone, successors to Thrale, pay to the excise £400,000 yearly. Besides the public breweries, every good housewife has the art of making good beer.† The laboring classes dine at 1 o'clock, but the dinner hours of the higher orders are 5, 6, 7, and 8.

14. Diseases. Consumptions are frequent, and dyspepsia, with its train of hypochondria, more so. It is the Englishman's malady. The gout is perhaps more common than in any other country. There are few diseases of a malignant type, and a great many people live to the greatest age of man.

15. Traveling. An Englishman is excusable for complaining of the inconveniences of traveling in other countries, and he should be allowed some license to abuse the accommodations for travelers in the United States. In England, the roads are excellent, the coaches easy, the speed great, and the inns of more excellence, than is found in any other country. The houses for these are commodious, the furniture good, the servants quick and attentive, and the host civil and obliging. All this is crowned with the neatness and propriety of arrange-

* The beef of England has its reputation from comparison with that of the continent, which is greatly inferior. It is also better than the average of the beef in the United States ; but the best beef in England is in no respect superior, and probably not quite equal, to the best beef of the United States.

† Till the reign of William and Mary, ale was the common beverage of the laboring class ; but an act for the encouragement of distillation increased the consumption of ardent spirits so much, that it was necessary to restrain it by another law, and the evil continued till 1751, before which, says Smollett, "such a shameful degree of profligacy prevailed, that the retailers of this poisonous compound (gin) set up painted boards in public, inviting the people to be drunk for the small expense of a penny, assuring them, that they might be dead drunk for two pence, and have straw to lie on till they recovered, for nothing." In 1827, the restrictions on the sale of gin were removed, and

the consumption of it increased, in 2 years, 12,000,000 of gallons. The excessive consumption of this deleterious drug is indeed a curse to England, and the sheriff of London and Middlesex declared, that he had so long been in the habit of hearing criminals refer all their miseries to this, that he had ceased to ask the cause of their ruin. Were any new and unknown cause to arise and produce the same ruin upon body and soul, that ardent spirit produces in England and the United States, it would break down the pillars of society, and men would flee to the woods and mountains to escape what is more terrible than cholera or plague, inasmuch as the power of these extends to the destruction only of life.

There are Temperance Societies lately organized in England, which have distributed 100,000 tracts, and the government no longer furnishes the soldier with spirits throughout the provinces, but gives him in place of it a penny a day.

ments that distinguish the private dwellings of the English. As these conveniences are for hire, it is but natural, that he whose appearance denotes the most wealth, should have the greatest attention. The traveler who arrives in the stagecoach will not have to encounter such a rush of servants to welcome his arrival as he that comes in a post chaise, and the pedestrian may often be left to wait upon himself, if he is even so fortunate as to be admitted to the house.

There is no kind of traveling more agreeable than that of posting. The traveler may hire a post coach or post chaise with two horses, at any of the inns. In fashion, it very much resembles a common coach, excepting that it contains but two seats, and the body is shaped like half the body of a common coach. The usual rate of traveling is about 10 miles an hour, but the post boy can easily be bribed to make it 12. The post is about 10 miles, at the end of which you get another establishment, which is furnished with great celerity, and you proceed as before. This is a very common method of traveling among the rich, who seldom are found in the stagecoaches. The English are inclined to travel much, and the life of the higher classes is almost migratory. It is passed between London, the country, the watering-places, and the continent. There are, even among the yeomanry, few of any substance who have not been at London.

The servants at the English inns are excellent, and indeed all over England ; as it is considered no discredit to serve ; and as places are desirable, there is no lack of servants ; still even in England, as in the United States, a standing topic among matrons, of the difficulty of finding good servants. At inns, the servants have no wages, and they depend for support upon the liberality of the guests ; of course they are obsequious and obliging. They are always well dressed, and many of them are coxcombs. Some of them give a premium for places instead of receiving a salary for services. On the arrival of a coach, there is a general rush of the servants to assist the passengers in alighting. Two footmen stand at the door, and proffer an elbow ; the chamber-maid comes to show the rooms, and even " Boots," who gets his title from what he brushes, shares in the hospitable impulse. On the departure, the servants range themselves in a line, and if any guest forgets a *douceur*, he is gently requested to *remember* the chamber-maid, " Boots," &c. Sally, originally the name of an individual, now designates a class, and every chamber-maid is called by that name. The English inns are indeed so excellent, that they well deserve the commendation of Sheenstone, which is so often scribbled upon the wainscot and windows.

" Whoe'er has traveled life's dull round,
Whate'er his stages may have been,
Must sigh to think he still has found
His warmest welcome at an inn."

The inns of England, however, are not the hospices of poverty. The alehouses are the resorts of the more numerous class, that cannot afford the luxuries of the inns, and they are often neat and commodious. A traveler who desires to see the unsophisticated English character, will find it more at the alehouse, than at the inns.

The most common vehicles for traveling are the mail-coaches, some of which carry 4 passengers within, and 10 or more upon the top. Others, however, carry more within and without, and the roads are so good, that 4 horses easily carry 18 passengers. The mail-coaches go, including stops, 8, 9, or 10 miles an hour. The top-seats are often preferred, as they are much cheaper, and as they enable the passenger more to enjoy the beauty of the country. At first, it seems perilous to ride at such an elevation, when the velocity is so great, for there is but a single iron railing to hold by ; but in a short time the traveler suffers himself to be moved with every motion of the coach, instead of resisting it, and to feel a perfect security in his elevation. The coachman is well acquainted with the people who live on the road, whom he salutes in passing ; and to the passengers he is communicative and civil. The guard, who rides in the rear with pistols at hand in case of need, and a bugle to give notice of his approach, is also obliging, and it has grown into a custom for every passenger to give him a shilling for every 20 miles. The coachman is also paid in a similar way.

The coaches are of various forms ; some are of a cylindrical shape, and are very long and large ; many have names like ships, painted on the pannels, together with the towns through which they pass. The guard, and sometimes the coachman, wear the royal livery, and the whole makes a gay appearance. On the road, each carriage passes another on the left ; which is better than our custom of taking the right, as it gives the coachman a better chance to see the

distance between the vehicles. England has been called the "hell of horses,"* and it certainly is not their paradise. The racer too often passes through all gradations of misery, from the turf, which is no quiet life, to the coach, the drag, and the mill.

The Canals, which pass over many parts of England, offer a cheap and easy conveyance, and there are, on the Thames, a great many boats for passengers. More than 4,000 have been known to pass upwards on a Sunday. They are sharp and long, and go through the water rapidly. The fare is regulated by law; the boats themselves are numbered, and the boatmen have a costume. On Sundays, the outpouring from London is prodigious; the laborers are delighted to go into the fields; and the gentry, on that day, often go to their villas. They have to pay, however, on the Sabbath, double tolls. In the cities, there are sedan chairs, which carry one person. They are borne by two men by means of poles. They are not now much used, except for carrying persons who are dressed for occasions of ceremony.

Besides the modes of conveyance described above, there are huge wagons, for passengers and merchandise. They have 8 or 10 horses, and the driver sometimes rides on a poney by their side. There are, in the appropriate seasons, many pedestrian travelers in the picturesque parts of England; and they may be seen about the castles, lakes, and mountains, each with his umbrella and knapsack, in search of the picturesque.

16. *Character, Manners, Customs.*

"Pride in their port, defiance in their eye."

This is the description of Goldsmith, and no one who is acquainted with the people, called by the general name of John Bull, will deny that they have at least pride; this, and reserve, are traits in the character of the English, so obvious, that a stranger may see them. They are too ungracious to be overlooked or forgotten. An Englishman is so little disposed to bold discourse with strangers at ordinaries, coffee-rooms, or places of amusement, that he is apt to consider their address to him, as involving some sinister design upon his purse or dignity, and if he reply without rudeness, it is in the coldest manner. This trait of English character has been somewhat softened in the people of the United States who inherit it, and it is less repulsive than in England. A Frenchman and most other Europeans will readily and cheerfully converse, with whatever people he may chance to be placed; but an Englishman draws himself in like a snail from any contact with strangers, and he operates upon the spirit of cheerfulness among them as water acts upon fire. This is partly the effect of pride; it arises, also, in part from the want of that early introduction to society † which is common on the continent. An English boy is sent to a distant school, of a republican character, where he is thrown upon his own resources; while a French stripling, under the care of his mother, is conversant with gay and fashionable society.

It must be admitted, however, that an Englishman has some ground or excuse for pride, and that in many European countries he may reasonably have a feeling of superiority. He feels that he is a member of that great empire to which Europe looks with respect; his country holds the trident of the ocean, or at least of the seas that wash the old world. Britain holds the keys of the Mediterranean, controls the commerce of India, and has an empire there; upon her dominions the sun never sets, and all these pour their countless riches to swell the wealth of England. The Englishman may also feel, in his own person, some pride, that he is a countryman of Shakspeare, Newton, and a thousand renowned names in science, adventure, and charity; he may appropriate to himself a portion of the fame of the Nile, of Blenheim, and of Waterloo; and these are surely some incentives to pride. One of the purest men that ever lived, and himself an Englishman, declares, that it is distinction enough for the ambition of a moderate man,

"That Wolfe's great name's cotemporal with his own,
And Chatham's language is his mother tongue."

But this propensity of an Englishman to rate highly his own merits, and the dignity of his

* The horses in the stagecoaches are usually animals of fine blood, but having some blemish are bought at a low price. They are often excessively overdriven.

† It is probable, that the repulsive manner of the Englishman to strangers, is somewhat the result of the state of society in England. The crowded manner in which the people of that country live, exposes them to constant en-

croachments, from the impertinent, obtrusive, and designing, and a haughty demeanor is perhaps worn abroad, as a defensive armor against such characters. This seems a more probable solution, from the fact, that the moment you cease to stand in the relation of a stranger to an Englishman, and become his guest, nothing can be more frank and hearty than his treatment of you.

country, is connected with the less excusable practice of underrating the merits of others. It was an unsophisticated expression of Mr. Bull, that, for aught he could see, "all foreigners are fools:" and the English comedies abound in this trait. Were the French, or the people of the United States, known to others only from the description of the English, the French would be considered as universally vain, unstable, and insincere, and Brother Jonathan would be even less favorably esteemed, as a selfish, coarse, and boastful demi-savage.

In truth, it is the unreasonable national pride and vanity of the English, that make them so intolerant to a spark of the same flame in others; were they not more proud, they would not be moved by the harmless pride of others. This spirit is seldom allayed in an Englishman by a visit to the United States, or by a favorable description of this republic. If he but hear a farmer in New England express his contentment in living under a government of equal rights, he looks back to his own country, and because he was not oppressed there by poverty or the laws, reflects not that others were; or he is stung by the honest Yankee's remarks, because he remembers that there are in England, taxes, game laws, and a code of 200 capital crimes. An Englishman in our country, nothing can satisfy; he loses both his sense of justice, and his desire to be just; his judgment may be convinced, but not his will. The more he is courted, the more hospitably he is entreated, the higher does the spirit of rebuke and sarcasm rise within him. Yet one of the most intolerant of British travelers has remarked, that though he oftentimes provoked the national pride, and sometimes sought to wound, he never saw an American out of temper.

The political intolerance is far greater in an Englishman than the religious, and he will sooner forgive in us an erroneous religion, than a sound and prosperous government. An Englishman loves and venerates the very name of old England; but it is a pity that so good a principle as patriotism should ever be severed from justice, or that of two countries of the same stock, and so much alike, an Englishman should "love the one and hate the other." He is indeed placable to an individual, but a nation it is harder for him to forgive; and the authors, the statesmen, the philosophers, the clergy, and the people of England, cannot yet forgive the descendants from their ancestors, for thriving under an independent government, and for having been the first to break forever the charm of Britain's naval invincibility. We are not well pleased, that the brothers of the house whence we sprung, should hold us as aliens and enemies, or underrate and revile us. It is not our fault, that an Englishman is not received in this country with more favor than any other stranger, or rather, not like a stranger. Formerly it was a passport to esteem, that a man came from England, but we are now obliged to require some better title. In the English character, however, though there are some unfavorable and ungracious points, it is but fair to balance them against some other peculiarities of character in other countries.

The institutions of England are not only favorable to liberty, but they are such as develop, in a great degree, individual character, and prompt the intellect to its highest and boldest flights. The higher classes of the English may, and will compare with any body of men on earth, for elevated and honorable sentiment. The road to distinction is also open to all, and it is not possible, in England, for authority to depress the aspiring. Power would, by attempting it, defeat its object, and raise him whom it intended to oppress, by interesting public opinion in his favor. The seats of honor are for those who will "come and take them." There is sufficient incitement to ambition, perhaps there is too much; a coronet for himself and his descendants for ever, is the glittering prize before the fancy of the subaltern, as he mounts the breach; and this, too, animates the sailor to moor his ship against a battery, or this also may sustain the student in threading the mazes of the law. Yet, where there is such distinction of classes, and such inequality of wealth, as in England, the best of life is for the higher orders,* and we republicans may well prefer for ourselves and posterity, a country where one grade comprises the whole people, and where, if there are no privileged classes, with inalienable wealth and hereditary titles, there is a more general and equal diffusion of knowledge, prosperity, and happiness, among all. It has been abundantly shown, that a government of equality can supply a

* The income of some of the British noblemen, from their estates, is truly prodigious. The Duke of Sunderland receiving annually, £360,000 sterling; the Duke of Northumberland, £300,000; and the Duke of Buccleugh, £250,000. Many others have nearly equal revenues. Yet such is the scale of magnificence, upon which these

noblemen live, that the whole income is usually appropriated to meet fixed and necessary expenditures, and often the revenue of the coming year is encroached upon to pay the expenses of this. Almost all the nobility are deeply in debt, and many estates are held in trust for the benefit of creditors.

sufficient stimulus for exertion and genius in the approval of public opinion. The praise of the enlightened is better than titles, and history is more just than heraldry.

Though there are many grades of dignity in England, there is a certain arena in society in which all gentlemen are equal. The title of a gentleman is not to be defined; yet it is understood in England even by the vulgar.* No rank, under that of Majesty, has been held sacred enough in England, to take away the accountability of an insult; and a son of the king has been held by a subject answerable in the field. The nobility of England are not, generally, ostentatious. They dress more plainly than the tradesmen, and their houses in town are externally neither showy nor grand. They are like the houses of the thriving merchants of Boston or Philadelphia, and not like the palaces of the bankers at Rome and Naples. In the country, however, the mansions are often more costly, and here is the place to test the boasted, but decaying, "old English hospitality."†

* The original signification of the word *gentleman*, was, *one of gentle blood*. In later times, it seems to imply a character worthy of high descent. Yet it has a technical sense, which embraces not only persons of rank, but officers in the army and navy, and, generally, those who are able to meet the expenses of fashionable life, without engaging in any gainful employment. In this sense, the term rather indicates a man's condition; while in America, we use it rather as applying to character.

† We subjoin an account of the manner in which an English nobleman usually passes his time. Owing to the meeting of Parliament, the London season, as it is called, takes place during the finest months in the year. No sooner has the spring begun to put forth her blossoms, than carriages and four may be seen hastening in every direction towards the metropolis. Green fields are exchanged for smoky streets, the lowing of cattle for the voices of statesmen, and the song of the lark for the warbling of Pasta or Sontag. The noble mansions in Cavendish or Grosvenor Square, and the elegant fabrics of Park-Lane and May-Fair, which all winter have looked forlorn and deserted, now begin to assume an appearance of business and gayety. The unmarried nobleman usually hastens to his favorite hotel, in Berkeley or St. James's Square, Albemarle street or Piccadilly. The bowing waiters welcome the arrival of the coroneted britschka. The Morning Post announces his Lordship's arrival, and his fashionable friends hasten to welcome his return to the metropolis. Is an incredibly short period, his table is covered with petitions from authors who request the permission of dedicating their works to him; from actresses who request his patronage on a benefit night; from half-starved younger sons wishing for promotion in the army or navy; from men out of place who are desirous of preferment; tickets for Almack's, tradesmen's bills, showers of invitations, letters from his agents, from his steward, &c. It is seldom, that the noble lord has either time or inclination to attend to these multifarious matters. While taking his chocolate in dressing-gown and slippers, he opens a few, answers those from ladies, commits a portion to the flames, and intrusts the rest to the discretion of his secretary or confidential valet.

If he is a man of political consequence, his society is courted by men in power, by ministers to whom his vote may be of service, and who endeavor by invitations to their select dinners, and other marks of attention, to draw him over to their party. If Parliament has met, his lordship drives to the House of Lords, and takes his seat among his Peers. When the debate is over, he mounts his horse, and gallops to the Park; renews his acquaintance with the ladies of his own circle; makes his appearance at the windows of the most fashionable club; chooses his box at the opera; patronizes the new singer, or ballet dancer, and repairs from thence to a select supper at lady J——y's, or perhaps terminates the evening by disposing of some of his loose cash at Crockford's. A *soirée* at H—— House, is one which his lordship would by no means omit. This splendid mansion is situated in Park Lane. On festive occasions nothing can be more brilliant than the appearance it presents. The stair is an inclined plane, winding through the house by a gentle ascent, and richly covered with turkey carpet. The light is en-

closed in pillars of crystal, which have a very brilliant and novel effect. The rooms are magnificently furnished; and even the dressing-room and boudoir of the Marchioness are thrown open on gala nights for the inspection of the curious. The furniture of the boudoir is composed entirely of Indian shawls of immense value. The chairs and sofas are covered with the borders of these shawls. All the toilet ornaments are massive gold; and pages dressed in pink and silver are in constant attendance. If the nobleman is married, he prefers his family mansion to an hotel. His society is more extensive, yet more *recherchée*. The duke of D., though an unmarried nobleman, yet being of a certain age, and possessed of a stupendous fortune, is in the habit of giving balls, suppers, and private theatricals, to which ladies of the highest rank consider it a distinction to be invited. They do not even expect his grace to exert his memory so far as to call upon them, but leave their cards with his porter, who inscribes their names in his book. It is also the duty of a nobleman to attend the levees and drawing rooms at court, on which occasions he displays every possible magnificence in dress, equipage, and liveries.

But Parliament at length is up, London gayety ends,

"And tradesmen, with long bills, and longer faces,
Sigh as the post-boy fastens on the traces."

Every one who has the least pretensions to fashion hastens from town, as if the plague or cholera morbus had suddenly made their appearance in its populous streets. As Lord Byron says,

"The English winter, — ending in July
To recommence in August, — now is done,
'T is the postillions paradise; wheels fly;
On roads, east, south, north, west, there is a run."

The Morning Post announces the departure of the noble lord and his family for his seat in the county of —, as the shooting season is about to commence. His lordship, however numerous his estates, gives the preference to that where the best sport can be furnished. But to enliven the solitude of the country, a select and numerous party of his fashionable and sporting friends are invited to join him. Dukes and Duchesses, Earls and Countesses, foreigners of distinction, Greek Counts, and Polish Princes, sporting characters, men of talent and literature, or who wish to pass for such; wits, poets, and hangers on, of every description, and frequently the last celebrated actress or singer, who has consented to warble a few notes at an enormous expense, all follow in his train; some to amuse, and some to be amused, some to kill time, and others to kill birds; fortune-hunters and fox-hunters, some from the love of gaming, and others from the love of game. A French cook, an Italian confectioner, and a German courier have been sent down to prepare for the reception of the guests. The country squires and their wives look out anxiously for the arrival of the nobleman and his London train; the ladies in the hopes of seeing the last London fashions and London airs, gay breakfasts and county balls; the gentlemen in the more substantial expectation of good dinners and choice

The nobility are, generally, on more familiar terms with the tenantry and the poor, who find them more easy of access, than retired merchants or manufacturers. The servants of a household are frequently born, and often die, in the house. The coachman, like Sir Roger de Coverly's, is gray-headed, and the butler's son is often the companion or tutor of the young heir.

Much has been said of the English phlegm, yet this is not so much a want of feeling, as a suppression of the marks of feeling. Besides, it is now the fashion to affect an utter nonchalance. An English fashionable would feel shame if any exclamation of passion should escape him; everything is transacted with the most imperturbable coolness, whether a duel or a dance. This frigid demeanor would have little favor at Paris, where everything is carried by enthusiasm, or the affectation of it. It is said, that an English lady of rank asked one of these stoics

wines. The villagers rejoice at seeing the curling smoke once more ascend from the chimneys of the great house. The gamekeepers clean their rusty firelocks and shot belts. The grooms look well to the condition of their stud, and the gardeners arrange their hot-houses, conservatories, and pineries for my lady's approbation. The family seat of an English nobleman usually combines ancient grandeur with modern elegance.

The principal entries are guarded by gates of solid iron, with porter's lodges constructed with much taste; sometimes castellated to suit the architecture of the house itself, or low Grecian buildings with rows of marble pillars, entwined with jasmine and roses. The avenue winds through the park, which is a vast inclosure, frequently 20 miles in circumference, and adorned with scattered clumps of noble trees, oaks which are the growth of centuries,

"And oaks, as olden as their pedigree,
Told of their sires, a tomb in every tree."

Summer-houses, cottage-ornées, and temples are scattered in every direction. Perhaps a noble river winds its course through the grounds, with wooded banks sloping downwards to its brink; or a broad, transparent lake with islands and pleasure-boats, adds to the variety of the scenery. Numerous herds of deer may be seen lying under the forest-trees, starting at the slightest sound, and sweeping by to hide themselves in the thickest shade. Then there are gardens with heated-walls, shrubberies and plantations of vast extent, green-houses and hot-houses, graperies, pineries, and aviaries. But little rural beauty is enjoyed by the proprietor of the estate. The flowers have faded, and the leaves grown yellow with the autumnal tints, before fashion permit him to pay any lengthened visit to his country seat. Within the mansion there are long suites of rooms, furnished with all the refinement of modern luxury, turkey carpets, low ottomans, damask hangings, and walls draped with silk, and paneled with mirrors; statues, vases, and candelabras, tables of mosaic and or-molu; long galleries, and huge halls which retain a more ancient and feudal taste; the walls hung with family-portraits, descending from generations long since passed away, barons in steel, and ladies in antique court-dresses; judges in ermine, and generals in armor; beauties from the pencil of Vandyke and Sir Peter Lely; frequently mingled with paintings from still greater masters; Claude Lorraines, Titians, and Salvators. It might be thought, from the heterogeneous mixture of guests assembled at the nobleman's villa, that little harmony would subsist among them. But there is one rule observed by the host which is seldom broken in upon. He never interferes with the pursuits of his guests, but leaves them to follow the bent of their own inclinations, whether grave or gay.

The man of literature and the sportsman, follow their respective tastes undisturbed. Here is a library for the studious, music rooms for the lover of harmony; for the connoisseur there is a gallery of paintings, and billiards for those who prefer that amusement. Horses ready saddled are at the disposal of all who wish for exercise; and numerous servants are ready to attend the call of those who remain in their apartments, and prefer their own

society to that of others. If the morning is fine, and fitted for the enjoyment of the chase, his lordship rises betimes and joins the sportsmen. The court now presents an animated scene; there are game-keepers, gentlemen in shooting-jackets or hunting-coats; grooms giving gentle exercise to the hunters; greyhounds in leashes; pointers, &c. A substantial breakfast is spread for the keen appetite of the sportsmen. The side-tables are covered with game, cold meat, and wine. A hasty breakfast is interrupted by the shrill blast of the horn. The huntsman rides round at the head of his yelling pack of fox-hounds, cracks his whip, and calls each dog to order by name. The nobleman and his sporting guests hurry out, mount their hunters, and gallop after the hounds. But, if the morning is dark and rainy, and no sport can be enjoyed out of doors, other amusements are resorted to. The breakfast-room is filled with idlers and loungers. The first interesting moment is the arrival of the newspapers and letters. The eagerness with which the bag is opened, and the avidity with which its contents are received, would lead one to suspect, that wherever the guests may have strayed, their thoughts are in London. As his lordship enjoys the same liberty that he leaves to his guests, he probably passes the morning in his apartment, receives his steward, looks over his bills, listens to the complaints of his tenantry, or consults with his architect in regard to the repairing or embellishing his mansion. Perhaps an hour at billiards, or a visit to the stables, passes away the time till luncheon, where the ladies meet to eat, and the gentlemen to look at them, for no true gourmand will spoil his dinner by an intervening meal. But the dinner hour in the country is the time for sociability, when English reserve thaws, when the company meet together probably for the first time in the day, and the courteous host presides at his table with the cares of the morning erased from his brow.

The large hall is brilliantly lighted up, and a cheerful fire blazes in the grate. The tables and sideboard shine in all the luxury of massive gold plate, with the family arms emblazoned in every direction. The refined French cookery is mingled with more solid fare for the hungry sportsman and the country squire. The conversation sparkles like the champagne; and brilliant wit, which had been corked up all day, now flows unchecked. In the evening, the long suite of rooms are in a blaze of light, and the delicate exotics of the conservatory shining in the light of the lamps produce a kind of artificial summer. Music and dancing, cards and conversation are resorted to by turns. The sportsmen recount their feats; the gourmand discusses the merits of his dinner; the politicians sit in a nook apart, calculating upon the probabilities of a continental war. The company usually disperse by midnight, the ladies to recruit their looks for the next London season, the gentlemen to recruit their strength for the next pheasant *battue*, or fox-chase. When the sporting season is over, the guests disperse, and his lordship is left at liberty to dispose of his time, either in remaining to cultivate the acquaintance of his country neighbors, or in visiting his other estates. The Christmas festivities bring a renewal of country gaiety. A tour to the continent frequently disposes of the remaining months till politics and pleasure recall the noble lord to London.

of the saloons to dance with her friend, — “Well, trot her out,” was the characteristic reply. In England, as well as in Europe generally, the life of young, unmarried females is one of seclusion. Marriage is there the state of freedom, and a matron is held to a less strict rule of life, than a maiden. In the United States, this principle is reversed, and the effect is not unfavorable.

The English have reduced convenience and comfort to a system unknown in other countries. Every piece of furniture is perfect in its kind. The table furniture is costly, and the windows and doors are joined with the utmost nicety. The very grate is made to shine like a mirror, and it is commonly of some elegant form. It is an Englishman's delight to stir the fire, as it is also the pleasure of his transatlantic brethren. The two great practical philosophers of New England, Franklin and Rumsford, speculated much on the principles of stoves and fire-places. In America, where wood is the general fuel, the amateur often takes down the whole fabric, that he may build it up in a better form; but the Englishman's operations are more simple, and he confines them to giving his sea-coal fire, a “rousing stir.” In New England it has been said, that serious domestic disputes arise from the question of the privilege of moving the fire. It is certain that a countryman, whoever he may be, who discovers a brand that may be better placed, will seldom fail to exercise his benevolence in putting it right. The English are a domestic people, and there is a vast amount of quiet happiness in England. The business of the day is concluded before the social hour of dinner, and the cares of the world are dismissed for the night. Dinner is the principal meal, and it is not swallowed in the ravenous haste that is so common in America.

The hours of the fashionable world in London, for London is a world, are those of night, and all the night. At ten, there is a constant roar of carriages, and it subsides not till long after midnight. The fashionable assemblies and routs are crowds, so dense, that it is hard to penetrate them, or to escape from them. The houses are often stripped of furniture to the garret, the better to contain the “troops of friends,” who come on a previous intimation, that the hostess is “at home.” There is here a confusion of tongues, but little conversation. The rooms are in a blaze of light, and the shutters thrown open for the gazing crowd in the streets. When an American in London invited half a dozen friends in an evening, the servants opened the blinds, thinking it to be a rout after the American mode. In London, it is the numbers, and not the enjoyment, that give eclat.

On particular occasions, the English dress with great splendor, and the ladies are often oppressed with the weight of jewels and diamonds.* But in general the linen drapers, merchants, &c., are the finest dressed persons about London. The court dress is in fashion that was general 70 years ago. The coats are without collars, and have wide sleeves and broad skirts. The ladies have hooped petticoats and high head-dresses. There is, however, so little of the paraphernalia of royalty, that a stranger may live long in London, without seeing that it is the seat of the court.



English.

There is in England such a commercial competition, that a tradesman's arts are numerous, and his perseverance infinite, to attract customers. The shops are in themselves a show, and the contrast of colors, and arrangement of goods, are managed with much effect. The system of puffing is of course as well understood as in the United States; but it is practised with more delicacy and effect; it is not so *direct*, and the puff is often contained in a sort of practical metaphor. A pair of shoes are seen at a window, floating in a vase of water, to intimate that they are water-proof; and at another window is seen a wooden leg, booted and spurred, to show that

* In the establishment of an English gentleman, the men-servants are divided into two distinct classes; servants in livery, and servants out of livery. The servants who wear no livery, and who are considered superior to the others, are the butler, the underbutler, and the gentleman's valet. The livery servants are the coachman, the footmen, and the grooms. To all families of any consequence, a certain livery belongs.

A livery is a coat and small-clothes of a particular color and stuff. The coat is of fine cloth, and the small-clothes

of plush. Some wear a silver or gold epaulette on the left shoulder, or an aiguillette, which is a long silver or gold chord depending from the shoulders, and looped up with a gold or silver pin; also a hat with a gold or silver band. When the family is in mourning, the footmen wear black livery with a black epaulette or aiguillette on the shoulder. If the master of the house is a military man, or the lord-lieutenant of a county, his footmen wear black cockades in their hats. There is one livery which may be adopted by any family, as belonging to no peculiar one; this is a

such legs are made within to the life. Happy is the tradesman who can display over his door, the ensigns of royalty, as hatter, cutler, &c., to the king. There are a great many tradesmen thus favored, and there is a sign of "privileged bug-destroyer to his Majesty," and another, "vender of asses' milk to the Duke of York." In a monarchy, the favor of the sovereign is the road to wealth. It is also a great desire with a London tradesman, to have a "country-box" in some of the villages about the metropolis.

In England, as Trinculo says, "anything passes for a show," and the national curiosity finds gratification in the numerous spectacles of London. Some of these are peculiar, others are common to all cities. A shaven bear, dressed in a robe and turban, and made to sit upright, was once shown as an Ethiopian savage; and a small monkey, shaven and shorn, was dressed in green, and successfully exhibited as a fairy. An exhibition was made, too, of the fork belonging to the knife, with which Margaret Nicholson intended to kill the king. Quackery is in England, as in America, a certain way to wealth, if followed with sufficient zeal and impudence. There is no country that produces so many humorists as England, or so many persons who grow up with marked peculiarities of character. Men generally, in most enlightened countries, are much assimilated; but in England, the impress of the medal is often entire, and there we find the strangest whims and caprices, as boldly acted upon as if they were general principles.

Of course, there are some few contradictions in the English character. The people are liberal; yet there is hardly a museum, collection of pictures, or national monument open to the public, where there is not some *douceur* to be paid to the attendants. An Englishman at Genoa or Florence, is sensible to the ridicule that should pertain to the *grandees* for selling oil or wine at retail, in the basement of their palaces; yet, when he does not occupy for the evening his own opera box, he will let it out for hire. All classes of society, too, are fond of speculation; and many who would scorn to be directly connected in trade have yet an interest in bank, railroad, and other joint-stock companies. There is scarcely any person of property who is not, in some sense of the word, and to some extent, a trader. The property of many of the leading families was acquired by trade.

There is nothing in England, that strikes an American more forcibly than the difference in the situation of women there and here. As he arrives in a vessel at Liverpool, he notices

white cloth coat and scarlet plush small-clothes. Many families, who dislike the color of their own liveries, dress their servants in this. The livery servants leave their liveries when they leave their places. The footmen must wear powder; so generally does the butler.

The king's livery is crimson and gold; so also is that of the Duke of Hamilton. The Fifth livery is green and crimson, with gold lace; that of the earl of Weymouth, dark blue and yellow, with a profusion of silver. Pale blue and silver is the livery of several noble families. The coats are lined and faced with silk the color of the small-clothes. The dress of the grooms is a frock coat, top boots, and white corduroy small-clothes. When they ride as postilions, their dress is altered from a frock coat to a colored jacket agreeing with the livery, and the hat is changed to a black velvet cap, called a jockey cap. The under grooms, who are usually very small, light boys, are those chosen as postilions. The coachman wears the same livery as the footman; but is distinguished by his frock coat. To this is added, when he mounts the box, a bag wig powdered and curled like that of a judge, to increase his dignified appearance; also a cloth great coat with seven apes, three of the same color as his coat, the other four the same as his small-clothes. The duty of the coachman is to superintend the carriage and horses, to see that the grooms do their duty, and to drive with grace and dexterity. The duty of the grooms is to rub down and feed the horses, and keep them in good condition; to brighten the harness, and keep the saddles, bits, stirrups, &c., in order. They are usually assisted by stable-boys and helpers. When the coachman mounts his box, two grooms should be in readiness to place his whip in his hands; and to hold the reins for him while he puts on his white gloves. A coachman of taste seldom appears without a large bouquet in his coat. The business of the butler is to take charge of the cellar, to see that the under butler and foot-

men do their duty, and to superintend at the serving of the table, upon which he usually places the first dish. The duty of an under-butler is nearly the same. The gentleman's valet attends solely to the personal appearance of his master. It is his duty to keep the gentleman's wardrobe in order; to curl his hair; arrange his whiskers; remind him of his engagements; and to take care that his dress and appearance are exactly according to the last fashion. In a large establishment there are usually several footmen. Of these, one belongs exclusively to the lady. He attends her wherever she goes, with a cane in his hand, silk-stockings, and a nosegay in his coat. He stands behind her carriage; attends her to the opera, theatre, &c., &c.; and walks behind her in the Park; stands behind her chair at table, and should be six feet high. Footmen of this altitude are in great demand. The other footmen stand behind the carriage, serve at table, clean the plate, and keep everything appertaining to the table in order. A separate table is usually kept for the upper and under servants, as the butler and gentleman's personal servant consider it a degradation to eat with the footmen or grooms.

Ladies of high rank in London are frequently attended by chasseurs and hussars, especially by the former. The dress of a chasseur is very splendid. It is either green and gold, or green and silver. He wears a dress coat covered with gold lace, loose trousers striped with gold, a cocked hat, and an enormous black plume, and moustaches; also, half boots of chamois-colored leather, and gloves of the same, and a gold belt, in which is stuck a couteau-de-chasse. The tallest men are chosen for this office, and they are often Italians. The hussar wears the dress of a hussar officer, with a cap, cloak, and boots. It is the duty, both of the hussar and chasseur, to stand behind the carriage, and attend upon the lady, supplying the place, and doing the office, of a lady's footman.

among the crowd, that press to the wharf, nearly as many women as men. These are of the lower order, and mingle with the men as if there were no distinction of sex. They listen to the coarse jokes and rude oaths of the multitude without shame, and as freely join in the laugh and retort as if they were sailors and porters. As the stranger passes along through the town, he sees a multitude of women abroad, most of them without any other head-dress than a cap, and carrying bundles, or going in haste, as if on business. He proceeds to the vegetable market, and there he finds it almost exclusively attended by women; many of them with infants in their arms, or laid on the floor at their side. The traveler proceeds on his way to Manchester, and on the public highway, in the meadows and fields, and in every street through which he passes, he still sees women of the lower class abroad, attending to various occupations. Instead of shrinking from the gaze, as American women of the same class would do, they look the coachman and passengers boldly in the face, and seem not a whit abashed at impertinent looks, and more impertinent speeches. At Manchester and at Birmingham the women are seen engaged in various kinds of severe bodily labor. Not only are the manufactories filled with them, but in some instances they drive the horses attached to the drays, work iron in the smithies, and shovel coal to feed the fires of the steam engines. These women are in the constant habit of mixing with the men, and it is perfectly obvious, that they can possess no part of the delicacy and modesty, which are so common, and so nearly universal, among the humbler classes of females in our country.

There is a correspondent difference in the condition of the females of the higher classes of England and America. The women of the middle ranks, as well as the ladies of quality in England, are more accustomed to mix freely in the society of the other sex. Their lives are less secluded, less domestic. The married ladies, in particular, are less confined to the society of their husbands, and often mingle in matters of business, which are here left exclusively to men. If the English females are therefore better acquainted with the world, they are inferior to ours in delicacy. The rules of decorum in their state of society are somewhat relaxed, and topics, which would here be considered improper, are freely discussed or alluded to, as legitimate themes of conversation, between the sexes, there. But if our ladies have the advantage in natural delicacy, we must admit that, in artificial refinement, those of England surpass them. Their education is more thorough; their accomplishments more numerous and perfect. In the art of conversation they excel, and bestow upon fashionable society that exquisite polish which is never found here.

The crimes most common in England are frauds, though there are many of violence. In London, the pickpockets are proverbially adroit, and they are seldom idle in a crowd. There, too, it is common, before a family retires to rest, to place bells so, that they will be rung by the entrance of house-breakers. The thieves and rogues about London form a large community, and they have a peculiar language, called St. Giles's Greek. "To nab a kid," is to steal a child; to be "twisted" or "scragged," is to be hung; and execution is the "sheriff's ball," and Newgate is the "bower" or the "stone pitcher." To "stifle a squeaker," is to murder a child; to "rap," is to swear falsely; "Philistines," are bailiffs; "persuaders," are spurs; "one in ten," is a parson, and an "amen-curler," is a parish clerk. In Cornwall, the wreckers have often an opportunity to pillage, but they consider the plunder of the sea as lawful. They are not cruel; they relieve the mariner, and they rob him as gently as they can, or like Isaak Walton, when he hooked the frogs, "as though he loved them." A miner's life, however, is not so easy, that he would not be much tempted by the wreck of a ship. It is said, that the clergy there do not know half their parishioners, till they come up to be buried. It is probable, that most of the stories of the wreckers have as little foundation as the current tales concerning our honest fishermen of Cape Cod.

There is in England one peculiarity, characteristic of the state of society, which is the mob, the incarnation of John Bull. It is, in general, by no means malicious, though it is absolute. On seasons of rejoicing, it breaks the windows that are not illuminated, and it breaks the windows, also, of obnoxious persons. There is no regular organization, yet there seems to be some general mind or intelligence in the collective body, which usually acts with discrimination. In the United States we have no mob; there is not even a probability that we ever shall have one, but if we should have, it is not probable, that it would be more moderate or restrained than similar assemblages in England.

There is no country with so many princely, charitable, and religious foundations as England; but generally they are the growth of ages, and many of them have existed for centuries.

It is only in a country where property is secure, that such could exist. It is surely a noble disposition of wealth to leave it to charitable corporations, where the testator may live forever, if it be life to do as much posthumous good to the end of time, as he could have effected had he really been immortal. On the whole, in the English character, if there is not a little to censure, there is much to praise ; and nations must be judged in the same indulgent spirit as individuals ; neither can arrogate perfection ; and of England we may well say,

"England, with all thy faults, I love thee still."

The manners and customs of Wales, are somewhat dissimilar to those of England. The Welch are extremely national, and though their country is not fertile, they are greatly attached to their barren hills. It is not common to see in America, the great centre of emigration, a native of Wales. The temperament of a Welchman is somewhat ardent. He is industrious and frugal, and history attests that he is persevering and brave. The vale of Clwyd, which is one of the most charming on earth, is several miles in extent ; and it is remarkable for being the residence of only the wealthy. The laborers that dress it like a garden come to their toil a distance of several miles, for the lords of the soil, it seems, are unwilling that the cottage of the poor should rise near the palace of the rich. The improvements of modern life make their way in some parts of Wales more slowly than in any other corner of the island. The Welch have retained, also, their own language, and a few harpers are yet still found wandering about the country.

It is impossible to pass through Wales, however, without the conviction, that it is one of the happiest countries in the world ; the people give the traveler a cheerful nod, and they are extremely neat in their personal appearance and dwellings. Every cottage is white-washed till it is of a resplendent whiteness. Every cottage, too, has its roses, honey-suckles, vines, and neat walk to the door. There is no doubt that the same grade of people in the United States have more wealth, but it is certainly an indication of a mind at ease, and of habits of neatness and order, as well as of comfort, to have the humble dwellings of so much studied neatness as in Wales.

17. *Amusements.* The English are not a cheerful people, though they have many amusements, and some of them are peculiar. Some ancient sports that used to be pursued with zeal, are now disused, and others have grown into favor. The invention of gunpowder has destroyed hawking and archery ; and pugilism, that was unknown in the days of Robin Hood, has now risen to the dignity of a science, with a nomenclature of its own. Hunting has in some sort been neglected, for racing ; though there are still many Nimrods of the manor, who urge the chase at full speed for 30 miles. The English are good horsemen, and much of their training comes from the chase. The smaller game, such as pheasants, woodcocks, and partridges, are now chiefly killed by the sportsmen of England, who have wonderful skill with the fowling-piece. There are books printed with blank columns for a sportsman's chronicle, in which he notes the number and description of game, when and where killed, &c. Hunting is so common in all nations, that men hardly regard it as a cruel sport.

But there are many popular sports in England which an English traveler must forget, before he can censure the bull fights of Spain. A bull baiting is little better than a bull fight. The animal is in England tied to a ring, and dogs are set upon him. They fasten upon his nostrils, and he gores them, or tosses them in the air. In the arenas of Spain, the bull has in some sort, fair play, which, even the English proverb admits, is a jewel. He is allowed space for action and means of defence, and he sometimes mingles the blood of his persecutors with his own. In England he is tied to the rack and tortured.

Pugilism or boxing is pursued with incredible zeal. A match is announced in the papers for weeks before it is held, and the champions are put in a regular course of diet or training. At the fight, every sort of vehicle to which horse was ever attached, is put in requisition, and on the field these are formed in a circle round the space allotted for the ring, and the spectators stand upon them. The contests are sometimes fatal, and always sanguinary. When the flesh of one of the pugilists is beaten to a jelly, he is said to be much "punished" ; a blow in the stomach is termed a hit in the "bread-basket ;" to draw blood is to "tap claret ;" and a report of a fight relates, that a champion having knocked out one of his antagonist's eyes, "made continual play at the other." Well may the amateurs of this "science" be called "the Fancy." This sportive language on such a subject, is as bad as the practice it de

scribes; and to be merry and malicious at the same time, is, it has been said, the strongest evidence of a depraved heart.* Among the rural sports are wrestling, running, cudgel playing, pitching the bar, and other games of agility and strength.

In London one of the favorite amusements of the wealthy, is the Italian opera, which is one of the best in Europe. The distinguished performers assume much state, and it is a matter of delicate negotiation to engage them, or to reconcile their jealousies when they are engaged. To the opera, it is usual to go in a full dress.† The theatres, though often full, are less frequented than at the other capitals of Europe. There are provincial theatres in all the larger

* The following is a description of a battle between two pugilists, in the style that is common in the English papers. It is to be remembered, that there is a vast crowd about the ring which is cleared in this way. The amateurs make a regular onset upon them, and although it is taken as a jest, there is no lack of heavy blows. It is for a moment a scene of the greatest uproar, after which every one takes his place. The fight seems not to have been one of the most desperate ones, though perhaps it is a fair specimen of a battle by people under the grade of the professors. It was between deaf Davis and a feather-bed maker named English.

Round 1. The deaf-one had hardly put himself into attitude when he went to work like a hammer-man and floored English like a shot flat upon his back.

2. The feather-bed hero, before he could look round him again, received three fencers in succession and was again floored.

3. English came up gamely to the scratch, when Davis punished him in all directions and put in such a blow over one of his peepers that he was positively electrified. He put up his arm to feel if he had not lost his head, turned his back and was stopped only by the ropes. Here Davis caught his adversary and once more leveled him. "Take him away," rang from all parts of the ring, "he will be killed."

4. Contrary to all expectation the "feather-bed maker" was not such a flat as he seemed; he met Davis like a trump, and after a terrific rally Davis was hit down almost senseless.

5. English put a new face, or rather one of another color on Davis; he milled him from one end of the ring to the other, and by a flooring hit, levelled the deaf-one in his native dust.

6. Davis again took the lead, and nobbed the feathered hero to a stand still; when English in turn gave him a hit that was almost a finisher, on the knowledge-box.

7. This round was fighting "with a vengeance." The claret run in streams from both their mugs. Davis was floored, and on being called, said to his second "he could not stand." It was over in 12 minutes.

† Almacks, the best public assembly in London, is held twice a week during the season, in Willis's Rooms, St. James's street. It is under the direction of 12 ladies of the highest rank and fashion, who are called patronesses. These lady patronesses have the privilege of accepting or rejecting all candidates for admission. They regulate the hours, the music, the refreshments, &c.

At the approach of the season, and at other times, if anything urgent demands their attention, they meet in solemn conclave, in the apartments of Mr. Willis. Seats are placed for them round the table, where the debate is to be held. If one of their number has died, or resigned her office in consequence of ill health, absence from London, or a disagreement with her associates, the choice of a successor occasions as much debate, as the election of a new pope. Or if an application has been made by any lady, or gentleman, or family newly arrived in town, for admission to their weekly assembly, the condition, connections, and fashionable character of the individuals are discussed with a warmth which not unfrequently terminates in universal dissension. Great is the consternation of the officious Mr. Willis, when he perceives these signs of intestine discord. He flies about uneasily from duchess to countess, pokes the fire, makes a pleasant remark upon the weather, and hopes that nothing which he has said or done has caused offence to their ladyships. A lady with a large family of daughters is their aversion; or if

fortunate enough to obtain a subscription through some powerful interest, is precluded from bringing more than one on the same night. A young unmarried nobleman, or single gentleman of fashion and fortune, or a foreign count with a long name and a star, find little difficulty in winning their favor. They have, however, not unfrequently repented of their extreme partiality to foreigners, since a Greek count carried off one of their greatest heiresses, and proved to be a mere adventurer whose Albanian capote and moustaches *à la grec*, had given an air *distingué*; or since the great Russian prince with his ferocious air, and diamond buttons, turned out to be a discarded courier, who had made free with his master's wardrobe. The assembly-room is a large and lofty apartment, handsomely but plainly fitted up, with no furniture to impede the dancing, but tiers of benches covered with red stuff, and rising one above the other; splendid lustres of cut crystal, with smaller lamps variously disposed, give an equal and brilliant light to the apartment. The orchestra, which is in a gallery on one side, is occupied by Collinet and his celebrated band, unequalled for the beauty of their quadrilles, waltzes, and mazurkas. The staircase is well lighted and covered with scarlet cloth, and when the folding-doors are thrown open, the general effect is striking and brilliant.

As the society is thus carefully sifted, it consists of all that London can produce of fashion and high rank. The royal dukes seldom fail to attend. The princesses with their ladies in waiting, frequently honor Almacks with their presence. The dress of the ladies is usually more splendid than at a private party, and there is a greater display of fine jewels than is probably to be met with in any other assembly of the same description in Europe. Diamonds shake on the brows of the antiquated dowagers, or add a new lustre to the sparkling eyes of the younger peeresses. The full dress uniforms of field-marshal or guardsmen, add variety to the scene, and many of the greatest statesmen and ministers, relax their minds from the cares of the morning, by a frequent attendance at Almacks. The Duke of Wellington seldom fails to make his bow to the patronesses, though upon one occasion rather hardly treated by their despotic government. Their ladyships have made it a rule, that nobody should be admitted after eleven. One evening the fatal gates had just closed, when the carriage of the Duke of Wellington drove to the door, with a thundering knock for admittance. Up flew Willis to make known the distressing fact. "Keep him out," said a dowager peeress; "he knows the rules, and must abide by them." Willis bowed before the decrees of *Fate*; but in a few minutes returned. "His grace presents his compliments. He is in full dress and the night is cold. The House of Lords sat late upon an interesting debate, moreover he is but 5 minutes past his time, and is now standing in the passage." The patronesses looked at each other, "Keep him out;" exclaimed the young ladies M—. "The Duke of Wellington has no more right to transgress the rule than any one else." "The House of Lords, ladies," said Willis imploringly. "Let the House of Lords meet earlier on an Almacks night," said the Countess of S—. Willis descended with this last reply. "So much for the discipline of petticoat government," said his grace good-humoredly, as he drew his military cloak round him, and drove off. An air of formality is more observable at Almacks than at any other party in London. Fashion and rank being usually preferred to youth and beauty, there is a greater proportion of antiquated nobility than of the young or the gay. Besides which, young men of

towns, and there are companies of strollers, that, for want of better accommodations, will perform in a barn.*

The holidays may be included under the head of amusements, as generally the religious observances are obsolete, and only the games and feasts retained. But it is a pity, that the two great festivals, one of the church, and the other of the spring, Christmas and May-day, should fall into neglect. Christmas is no longer what it was in the olden time of "Merry England," and May-day is honored chiefly by the chimney sweepers. A turkey is always on the table at Christmas, and a goose at Michaelmas. Buns, marked with a cross, are baked on Good Friday, and pancakes are made at "Merry Shrove-tide." But the good old customs that brought landlord and tenant together, to be "merry in hall"; the Christmas pranks, pageants, and gambols are no more, and thus one more bond is broken, that united in feeling the high and the low. The maypole may be sometimes seen in a village, but seldom is there a joyous com-

fashion are apt to prefer the ease of their own club, to the full dress necessary for these réunions. Or when they do bestow their presence upon the society, few of them will go through with the exertion of performing a set of quadrilles. A few turns in the waltz with a fashionable married beauty, with the wife of a cabinet minister, or the daughter of the premier, suffices them for the evening. The gallopade, however, has begun to add a little life to the formality of Almacks. Sixty couples galloping at once round the room, are apt to lose a little of their reserve in the mere absurdity of their employment. The refreshments are little attended to. Tables with weak green tea and sugar biscuits shock the lover of a good supper. Many attempts have been made to throw this assembly into discredit.

Former patronesses, who have quarreled with their colleagues in office, have given select parties on the same night, in the amiable hope of drawing away the most distinguished persons from Willis's. But, as a select public assembly, it is still without a rival in the annals of London *gayety*.

The Clubs of London deserve notice here. Among the most fashionable are Brooke's, White's, Crockford's, Roodle's, and the Wyndham. The United Service Club and the Traveler's are also very celebrated; for admission to the latter, an individual must have been a traveler. These clubs are supported by an annual subscription from each of the members; as also by a sum of money paid by each member on entering. A club is formed by the association of a certain number of gentlemen, who fix upon a house, which they either buy or rent, and choose a master to manage it, in whose name the establishment is carried on. They agree upon certain rules which are written down, and which every member is bound to observe. By this means a single man finds himself enabled to enjoy the benefit of the best and most select society, together with every luxury that he can possibly desire, without the expense or trouble of maintaining an establishment of his own. When any innovation or amendment is about to be proposed, a committee of the members is held to deliberate upon its expediency. When one of the members proposes the introduction of any gentleman, he is balloted for by the others. Two black balls are sufficient to exclude him. The black-balled member may be again proposed for, and returned the next year. A good deal of interest is required to obtain admittance into the most fashionable clubs. Each member may have a sleeping apartment. There are several public rooms; one allotted exclusively for smoking, where cigars and coffee are always in readiness; another for billiards. A variety of servants, and a first rate French cook, are maintained by the master of the establishment. The arrangements of the first rate London clubs have now arrived at such a height of perfection, that young men of fashion not only spend the greatest part of their time there, but care little for any other society. Newspapers, breakfast, and billiards, conversation upon sport, *gayety*, or politics; lounging at the windows, and quizzing the passers-by, usually fill up their morning hours; and pass away those dull moments, during which no votary of fashion can with propriety be seen out of doors. Returning either from his attendance at the House or from a fatiguing ride, a member has the satisfaction of

having dinner at a moment's warning, without the troublesome necessity of dressing or of pulling off his boots. Or if he gives a dinner to a party of his fashionable friends, a private apartment is provided for him, together with every luxury and delicacy that London can afford; the most perfect attendance, the best cookery, and the rarest wines. Gambling is usually carried to a great extent; cards and dice are brought in after supper, or after a lengthened dinner, which has terminated in a call for supper, and during which the bottle has circulated freely. Immense sums are lost and won at whist and *écarté*. The excitement and dissipation, the total absence of ceremony mingled with refinement, which characterize these associations; combined, perhaps, with the insipid reserve which is observable in the circles of the modern aristocracy, have induced the young men of fashion in some measure to withdraw themselves from these more polished réunions, and to prefer an evening spent at their own club to the best society elsewhere.

Those sinks of vice and iniquity, known under the appropriate denomination of *Hells*, which disgrace the neighborhood of St. James's, and other fashionable parts of the metropolis, are unfortunately the resort of nearly half of the young men of rank and fortune in London. As they are not under the protection of government, like similar gambling establishments in Paris, Milan, &c., a certain degree of secrecy is necessary in conducting them. They are usually opened by some needy adventurer, who is associated with sharpers and other notorious characters. The society is of the most mixed description; the peer and the blackleg sit familiarly at the same table. Gambling levels all distinctions; and the proudest and most aristocratic nobleman is not ashamed to pass night after night in the company of the lowest and most infamous characters. No sooner has a young man of fortune set foot in London, than the members of the *Hells* fix their eye upon him as a fit subject for fleecing, and unless he has sufficient good sense to be warned by the experience of others, it is seldom that he can avoid the snare. But a gambler who has lost his fortune, too often has a pleasure in reducing all others to the same condition. A young man is induced to visit these gaming-houses from curiosity and a love of novelty. He plays at first with caution, and it is seldom that the company do not contrive that he shall win for the first few nights. Excitement soon follows; loss after loss at length renders him desperate; and he soon finds himself upon a level with those whose very names he would have scorned to pronounce but a few months before. The light of the sun is excluded from these asylums. The shutters are closed, and night succeeds day, and day follows night, and yet the gamblers continue in fierce and desperate contest. Hazard and *écarté* are the principal games. The lights, cards, and dice are supplied by the master of the establishment, with a casual refreshment to those who find it necessary. If the young man who has been inveigled into these haunts can by an effort of courage shake himself free before it is too late, the experience he has gained may be of service to him; otherwise he is plunged into irretrievable ruin, both of fortune and principles.

pany of youths dancing around it, and May has no longer its ancient festival. In London, a company of chimney sweepers may be seen on the first of May, with their sable rags, streaming with ribands, and their soiled faces shining with patches of gold leaf. They dance and solicit charity. It is the only day in the year in which they are drawn from their horrid slavery to seek for enjoyment.

On the 5th of November, the anniversary of the famous gunpowder plot, troops of boys may be seen bearing about what passes for an effigy of Guy Fawkes, cutting all sorts of antics, and singing the old verses,

"Don't you remember, the fifth of November,
Gunpowder treason and plot; I see no reason
Why gunpowder treason should ever be forgot," &c.

Beating the bounds is also a curious relic of Olden times, still kept up in some parishes.



Guy Fawkes.



Beating the Bounds.

18 Education. In late years, the greatest exertions have been made to spread knowledge among the common people, though the laboring classes are less intelligent than the same grade in Scotland or New England. Various series of cheap and admirable books for the instruction of the common people have been much spread, and some of them are now republished in the United States. There is also a great circulation of newspapers, and although few people in England take them, compared with the numbers that do so in this country, yet a paper passes through so many hands, that a great deal of intelligence is thus circulated. In the towns and villages there are reading clubs and circulating libraries.

About half of the children in England are educated at free schools. It is, however, those who are engaged in the manufactories who reap the least advantage from schools; yet, after the hours of labor are over, which make from half to two-thirds of the twenty-four, half an hour or an hour is devoted to instruction. The higher English schools have practically a republican tendency. The boys are sent to them young, and at a distance from home. Their consideration among their mates depends upon the manner in which they treat them, for there is little deference paid to wealth or rank. Each one is thrown on his own resources, and thus acquires a greater stability of purpose and civility of demeanor. The system of fagging is not indeed a republican one, but it is so far one of equality, that every fag has in time his own fag, as every dog is said to have his day.* The boys at school sometimes resist the lawful authorities, and rise in the rebellion of a "barring out." They rail up and barricade the doors and windows, collect such provisions as in haste they may, and often sustain a siege of several days so well, that they are admitted to honorable conditions of surrender. If, however, they are taken by storm, they have little to expect, but a thorough execution of the laws of the schools, which are no less severe than the articles of war. The English favor severe punishments in all things, and the practice of flogging is universal in the schools. Wealth and rank claim no exemption, and a boy under the 6th form at Eton is liable to this degrading punishment.

* At Eton, every boy under the 6th form may be flogged on the back, and the discipline is administered by the head master, who is commonly a gentleman of talents and acquirements; and all boys under the 5th and 6th forms are subjected to fagging, that is, they must obey, if they have

not the personal strength to resist, all the orders of the two upper classes; force and custom regulate fagging. The fag is held to brush clothes, get tea and breakfast, fetch and carry, stop balls at cricket, and to be beaten if he should refuse.

The revenues of the English Universities are immense ; Oxford and Cambridge " those twin stars of learning " are princely establishments. The fellowships, are some of them of ample income, and almost all of them insure a comfortable subsistence. It is possible, too, as in New England, for a poor scholar to enjoy the advantages of the Universities by performing certain menial services, and some of the greatest names in England were servitors in the Universities. The ancient discipline is somewhat relaxed, and though there are many excellent scholars, some youths there are who go to Oxford and Cambridge, only because it is the custom to go, and who carry away as little knowledge as they bring. There are in all parts of England, a great many private schools, under the direction of eminent scholars, but fewer of the endowed public schools like those in the United States called academies. Some of the most profound of the English scholars have kept these private schools ; and the advantage could not be slight, to a zealous student, of having the instruction of such men as Johnson and Parr.

19. *State of the Arts.* The arts, in England, have received their greatest impulse and advancement, within the last half century. There has, indeed, always been a sufficient degree of taste to lead to the purchase of foreign or ancient collections, but there was not sufficient encouragement to the artists at home. The Royal Academy has done much to improve the taste in the arts, and to encourage the professors. Excellence now meets with munificent reward, greater perhaps than in any other country, and artists of great merit have sprung up in all branches, and some of them of great originality.

There are a great many collections of paintings by the old masters, and many modern and antique sculptures. Greece has been plundered of what time and barbarians had spared, and the sculptures of the Parthenon have been transported to London. An English artist can find much to assist, in forming his taste in England, and Sir Thomas Lawrence did not see the monuments of his art in Italy till past the meridian of life. Sculpture has been as much advanced as painting, by Flaxman, Chantrey, and others ; and the features of the great and good of England will be faithfully transmitted in marble, to posterity.



The Clarence Vase.

The English have a passion for music, if their fondness of the Opera be a test ; and all musical performers of excellence receive splendid rewards. But it is in the useful arts that the English are most distinguished ; wherever commerce has freighted a ship, in the remotest corners of the earth, are to be found the products of English ingenuity. The cutlery, the porcelain, and the thousand articles of luxury and show, have been brought to such perfection, that all improvement seems impossible.

The sciences are much indebted to England, and the natural sciences are nowhere so successfully cultivated, except perhaps at Paris. Bacon seems to have diverted the inquiries of the English philosophers to these, though the philosophy of the mind has not of late been neglected. There are at present many luminaries in England, in the sciences of chemistry, geology, and anatomy. The government has despatched several expeditions, to penetrate to the Pacific Ocean, around the northern part of America, and though without success, still much has been gained to science. Other expeditions have greatly increased the stores of geographical knowledge, within a few years.

In no former age, has the press been so prolific, or literature so much spread and rewarded. The public is now the munificent patron, that discovers and rewards excellence, and it is no strange sight, though it was never seen in the days of Goldsmith and Fielding, to see an author made rich by the labors of his pen. The profusion of new books is, upon the whole, more remarkable than their excellence ; and, though there are many authors of the present day, with whom posterity will be familiar, the great mass, like those of every age, will be neither read nor remembered. The greatest change that a few years have made in English literature has been effected by a form of writing unknown to the ancients, that is, the novel. Several of the most gifted minds of the age have compressed in the narrative form, all their

vast knowledge of character, manners, morals, and everything that is connected with a deep knowledge of human nature.

20. Religion, &c. The earliest religion in Britain of which any account has reached us, was that of the Druids ; a gloomy and sanguinary superstition. It included a belief in transmigration, and enjoined human sacrifices. The temples were the deep recesses of a grove, or a circle of upright stones, for the Druids held it unlawful to worship the Deity under any roof raised by human hands. Tertullian, who died A. D. 202, was the first who asserted the existence of Christianity in England. But the irruption of the pagan Saxons suppressed it till 570, when it was renewed and extended, in consequence of the marriage of one of the monarchs with a princess of France.

The Protestant religion is now established by law, and the king is the head of the church. There are 2 archbishops, and 24 bishops, all of whom, except the Bishop of Sodor and Man, are peers of the realm, and have seats in the House of Lords. The archbishop of Canterbury is called the Primate of all England, and his rank is that next below the royal family. The archbishop of York is called the Primate of England. The bishops have some temporal authority, and the ecclesiastical jurisdiction extends to all questions of births, marriages, deaths, probate of wills, and delinquencies of the inferior clergy. Under the bishops, are the deans prebendaries, archdeacons, rectors, priests, curates, and deacons. The church wardens overlook the alms for the poor. A plurality of benefices is not uncommon, though the incumbent can perform only the duties of one ; and a slight excuse sometimes serves for a neglect of even these. The wealth and patronage of the church is immense. For a further view of this topic, the reader is referred to the article on Religion, under the head of Great Britain. In a wealthy parish, there are lectureships, or preaching, after the ordinary service, and the expense is defrayed by contribution. A clergyman has sometimes a chapel of his own, conveniently fitted up with stoves and easy seats, and, if a popular preacher, he lets out the pews to great advantage. The clergy of the established church are a learned and pious body, though there are many individuals in it, who have neither learning nor piety. Where the right of presentation to a church is held by a layman, he will too often be moved by considerations of friendship or affinity, more than by a desire to preserve the purity of the church. Hence there are so many sporting parsons in the country, and in London so many clergymen to be seen at theatres and balls.

The Dissenters are a numerous body, and have many ministers of great learning and purity of mind. The Dissenters are chiefly Methodists, Baptists, and Quakers. The Catholics are numerous, and have several colleges and convents. A description of all the different creeds would of itself make a volume ; the following list of the denominations is given by Mr. Southey : Arminians, Socinians, Baxterians, Presbyterians, New Americans, Sabellians, Lutherans, Moravians, Swedenborgians, Athanasians, Episcopalians, Arians, Sabbatarians, Trinitarians, Unitarians, Millenarians, Necessarians, Sublapsarians, Antinomians, Hutchinsonians, Sandemanians, Muggletonians, Baptists, Anabaptists, Pædobaptists, Methodists, Papists, Universalists, Calvinists, Materialists, Destructionists, Brownists, Independents, Protestants, Hugonots, Nonjurors, Seceders, Hershutters, Dunkers, Jumpers, Shakers, Quakers, &c. England has had a share of those enthusiasts, who first delude themselves and then lead others astray. Within the present century a madman named Richard Brothers, who had been a lieutenant in the navy, called himself the king of the Hebrews, and found many to believe in his title. He called the earth hell, and he taught that all men were created ; and that they fell with Adam, but had since transmigrated into different bodies. A first-rate engraver became a convert to this doctrine, and engraved the head of Brothers ; a member of Parliament, who was a profound oriental scholar, was another believer. London, however, would not come over to the faith, and Brothers threatened it with an earthquake and foretold the day ; but the city stood firm, and he pretended that he had saved it by prayer. Numbers, however, were alarmed, and it was said, that some looked for the general conflagration. It was said, too, that fire insurance advanced, and that some merchants made preparations for additional fire-engines, with directions for the firemen to "keep a sharp look out on the Bank of England." But the case was bad enough without ridicule, and the government caused Brothers to be confined as a lunatic.

His mantle fell upon Joanna Southcote, who seems to have had the requisite share of assurance for a false prophet. She asserted, that redemption hitherto extended only to men, and that she had been sent to redeem women. Nothing was too monstrous for her to feign, or for

her numerous followers to believe ; the credulity was equal to the imposture. Among a great many books written or dictated by her, is one giving a full account of her colloquy with the Devil. They met by agreement to hold a dispute of seven days. It was agreed, that Joanna should come alone, but that Satan might bring as many followers as he would. The conference was held in a solitary house, and Joanna has left a full report of it. The language, especially on the part of Joanna, was not adapted to "ears polite." Satan complained of her volubility, and reviled the whole sex.

The Sabbath is much more strictly observed in England than in the rest of Europe, though it is not uncommon to see athletic and other games on that day ; the laboring classes pour out from London, to pass the day in the fields, and during the fashionable season, Sunday is the time particularly chosen for promenading in the parks. Bibles are not in England so universally scattered among the people, as in New England. The right to print the Scriptures is restricted to the two universities and to the king's printer. No others may print it without a commentary. But a most splendid edition has been published in which the commentary was contained in a single line on a page, and that so low in the margin, that it was cut off by the binder.

Until recently marriages to be lawful, must be solemnized by a clergyman of the established church, and not without a previous publication of the banns, unless by a special license from the primate. There is a superstition, that Friday is unlucky, and there are few marriages on that day. The number of marriages is about 98,030 yearly, and 1 in 20 have no issue. The married women outlive the single. In the country, the average number of children to a marriage is 4 ; in the cities, it is 7 to 2 marriages. Every sect bury the dead after their own manner, and there is some pomp and parade, especially in processions at funerals. The dead are deposited in the vaults of a church, or buried in the churchyard ; all are dressed in woolen. Gray's elegy is the best possible description of a country churchyard. The yearly number of deaths is 332,708, or 25,592 monthly, 6,398 weekly, 914 daily, and 40 hourly. One half die before the age of 17, and 1 in 3,126 attains to 100 years.

21. *Government.* The government of Great Britain is a limited or constitutional monarchy, composed of the King and Parliament. The succession is limited to the Protestant line, and females may succeed. The prerogatives of the king are, to make war and peace, to conclude treaties, and, in times of urgency, to levy soldiers, to grant pardons, to impress seamen, to command fleets, armies, forts, and magazines, to appoint officers, and to assemble, prorogue, and dissolve parliament. The king is the head of the church, as well as of the state. His person is sacred, and it is a capital crime to intend his death. He can do no wrong ; that is, his ministers only are answerable for his measures ; and the House of Commons may impeach them, and direct them to be tried by the peers. The king's power is, however, much limited by the House



Royal Coach.

of Commons, which has the sole right of granting all supplies of money. Parliament is the great council of the nation, and the members hold their seats seven years, unless the parliament be dissolved. It is composed of the House of Lords, and the House of Commons.

The archbishops, and all the bishops of England except one, the bishop of Sodor and Man, and all the peers of England, have seats in the House of Lords ; 16 peers, chosen for one parliament, in Scotland, represent that country, and Ireland is represented by 28 peers, chosen for life. There are also 4 Irish bishops and archbishops representing the Irish Church. Some of the privileges of peers are, exemptions from arrests, except for treason, felony, &c. ; they are tried only by a jury of peers, who return their verdict, not upon their oath, but upon their honor. A peer may vote by proxy ; a member of the House of Commons cannot. The House of Peers at present consists of 24 Dukes, 20 Marquises, 117 Earls, 21 Viscounts, 206 Barons, 2 Archbishops, and 24 Bishops, beside the representative peers, and bishops.

The House of Commons, consists of 658 members, of whom 500 are from England and Wales ; 53 from Scotland, and 105 from Ireland. The members are chosen by counties,

cities, boroughs, and the 2 universities. Freeholders of 40 shillings yearly value, and persons occupying property at a rent of not less than £ 50 a year, or holding property on copyhold, or on lease of at least 60 years, of £ 10 yearly value, have the right to vote for the county members. In the cities and boroughs, the qualifications were very various, and some boroughs, which had ceased to contain any inhabitants, continued to return one or more members until the passage of the reform act in 1832. By that act, the rotten boroughs, as they were called, were disfranchised, and the right of suffrage is extended in the others to all £ 10 householders. The number of voters in England is now about 620,000. The members of the House of Commons have freedom of speech, and cannot be questioned out of the house for any words uttered in it. They are exempted from arrest in civil suits, together with their servants, while in parliament, or in going and returning. The ministers are compelled by custom to have a seat in parliament; and the Premier is commonly first Lord of the Treasury, as the direction of the revenue gives great influence.

Composition of the House of Commons.

		Members.			Members
England,	{ 40 counties, ...	144	Scotland,	{ 33 counties, ...	30
	{ 185 cities, boroughs, and towns, ...	337		{ 16 cities and boroughs, ...	23
Total, for England, ...		471	Total, for Scotland, ...		53
Wales,	{ 12 counties, ...	15	Ireland,	{ 32 counties, ...	64
	{ 14 districts, ...	14		{ 34 cities and towns, ...	41
Total for Wales, ...		29	Total, for Ireland, ...		105
			Total, ...		658

22. Laws The laws of England are divided into the statute law, or the enactments of the legislature, and the common law, which is the most ancient, and which has gradually grown up from the exigencies of society. The common law derives its authority from immemorial usage, and the origin of it is lost in remote antiquity, though some of it may have come from acts of Parliament, that have not been transmitted to us. This law lies in precedents and the decisions of courts; the evidences of it are in the records of courts, the reports of cases decided, and the treatises of learned and ancient sages. This venerable law constitutes the basis of the jurisprudence of all the United States, except Louisiana, where there is a code.

The great monuments of English law and bulwarks of justice, are the writ of "Habeas Corpus" and the trial by jury. This writ, as it now stands, was granted in the 31st year of Charles the Second, and it has been adopted in substance in all the United States; where, as in England, it may be suspended in emergencies, requiring the executive to have great powers, as in rebellion or invasion. Any person, restrained of his liberty, even by command of the king, shall, upon the demand of his counsel, have a writ of Habeas Corpus to bring his body before the Court of King's Bench or of the Common Pleas; which shall, within three court days, determine whether the cause of commitment be just. No subject can, therefore, be kept long in prison without legal cause.

The trial by jury is of Saxon origin, and, in England, the jury is composed of 12 persons, who are required to be unanimous. In Scotland, the number is 15, and a majority is taken instead of unanimity.

The judge the English people by their laws, previous to some recent changes, we might call them a savage people. The capital offences were lately about 200. In the reign of George the Third, 17 capital punishments had been made by one act, and by the marriage act, 5 capital felonies are created in one line. Well may it be said that a mere word slayeth.* The great-

* Sir William Meredith said recently in Parliament, "By this nickname of treason, there lies at this moment, in Newgate, under sentence to be burnt alive, a girl just turned of 14; at her master's bidding she hid some whitewashed farthings behind her stays, on which the jury found her guilty as an accomplice. The master was hanged last Wednesday, and the fagots all lay ready for her; no reprieve came till just as the cart was setting out, and the girl would have been burnt alive, had it not been for the humane and casual interference of Lord Weymouth. Good God! are we taught to execrate the fies of Smithfield, while we are lighting them now to

burn a poor harmless child for hiding a whitewashed farthing.

"When a member of Parliament brings in a new hanging law, he begins by mentioning some injury that may be done to private property, for which a man is not yet liable to be hanged, and then proposes the gallows as the specific, infallible means of cure and prevention; but the bill in its progress often makes crimes capital, that scarce deserve whipping. For instance, the shop-lifting act was to prevent banker's and silver smiths' shops, where there are commonly goods of great value, from being robbed; but it goes so far as to make it death to lift anything off a

est crime known to the laws is Treason, but under this head is included, besides the offence towards the king's life, that of slaying his chancellor, or judge, in the execution of their offices and that of counterfeiting the king's coin, or of bringing false money into the realm. The penalty for treason, was, that the offender be drawn to the gallows, on the ground or pavement, that he be hanged by the neck, and then cut down alive, that his entrails be taken out, and burned while he is yet alive, that his head be cut off, that his body be divided into four parts, and that his head and quarters be at the king's disposal. But all this is lately done away.

In the Tower burying-ground, it may puzzle some future antiquary to discover so many buried trunks wanting the heads; for executions for treason have generally taken place near the Tower. It is petty treason for a servant to slay his master, or a wife her husband, and instead of a cart, as in other capital offences, the criminal is drawn on a hurdle. The bodies of robbers are often hung in chains, till they fall to pieces. For adultery, there is no penalty in the criminal code; but for "*Grand Larceny*," or the taking goods from another above the value of twelve pence, the punishment is death. Death is, indeed, much honored in the English code. It is punished with death to steal an heiress, to forge deeds, notes, &c., for a bankrupt to refuse to surrender his effects, to pick pockets of above the value of one shilling, to steal bonds or bank notes, to steal above 40 shillings on a river, to steal or destroy linen in bleaching grounds, to lay in wait and disfigure or maim any person, to maim or kill any cattle maliciously, to break down the head of a fish pond, whereby fish may be lost, to cut down trees in an avenue or garden, to cut hop binds, to return from transportation, to conceal the death of an illegitimate child, to steal from a ship in distress, to stand mute, or to challenge above twenty jurors in capital felonies, to commit perjury under the insolvent acts, to personate bail, or acknowledge fines or judgments in another's name, and to send threatening letters. [See Supplement.]

The following enactments are some of them similar to the statutes in New England. Rogues and vagabonds are to be committed to prison, and among these are ranked persons going about soliciting alms, under pretences of loss by fire, fencers, bearwards, strolling players, minstrels, except those licensed by Lord Dutton in Cheshire, gypsies, fortune-tellers, persons threatening to run away and leave their wives and children on the parish, and persons wandering abroad, lodging in ale houses, out houses, or the open air, and not giving a good account of themselves. For many offences, the penalty is transportation to distant colonies.

The game laws are a peculiar trait in English jurisprudence. They are the relics of a darker age than the present, though the present age has by no means relaxed their severity. The ostensible reason is the preservation of game, but an incidental one may be the disarming of the great body of the people, as it is unlawful for one not qualified to kill game, or keep a gun, and his house may be searched, on suspicion. Any person is qualified to kill game, who has a freehold of £ 100 a year, or a church benefice of £ 150. The sons of esquires, and of persons of higher degree, have the same privilege, and a privileged person may take another with him who is not qualified. Often, therefore, a man cannot kill the partridge that lives upon his own estate, though a stranger may enter his enclosures and do this without trespass. The richest merchant or manufacturer in the kingdom, may also be unqualified to kill game. The penalty for selling game is severe, yet nothing is more openly or extensively sold, and poaching is a regular and a profitable trade. It has been proved, too, that the very "*Nimrods of the manor*" sell their game in defiance of honor and law. Several of the severest penalties are imposed by what is not misnamed the Black Act. The Bankrupt laws form a considerable code, and they afford relief to the tradesman who has conducted a fair, though not a thriving trade. Some similar system seems to be necessary in every commercial country.

There is much legislation under the head of poor laws, for the relief of that great body of people who cannot support themselves, and who require parish aid. The tax raised for

counter, with an intent to steal. Under this act, one Mary Jones was executed. The woman's husband was *pressed*, their goods seized for some debts of his, and she, with two small children, turned into the streets a begging. It is a circumstance not to be forgotten, that she was young, under 19, and remarkably handsome. She went to a linen-draper's shop, took some coarse linen off the counter, and slipped it under her cloak. The shopman saw her, and she laid it down; *for this she was hanged*. Her defence was (I have the trial in my pocket), 'That she had lived in credit and wanted for nothing, till a press-gang came and stole her husband from her; but since

then, she had no bed to lie on, nothing to give her children to eat, and they were almost naked: and perhaps she might have done something wrong, for she hardly knew what she did.' The parish officers testified to the truth of this story, but it seems there had been a good deal of shop-lifting about Ludgate; an example was thought necessary, and this woman was hanged for the comfort and satisfaction of some shopkeepers in Ludgate Hill."

Since the first edition of this work was issued, the criminal code of England has been much modified. The number of offences punished by death, is now 13

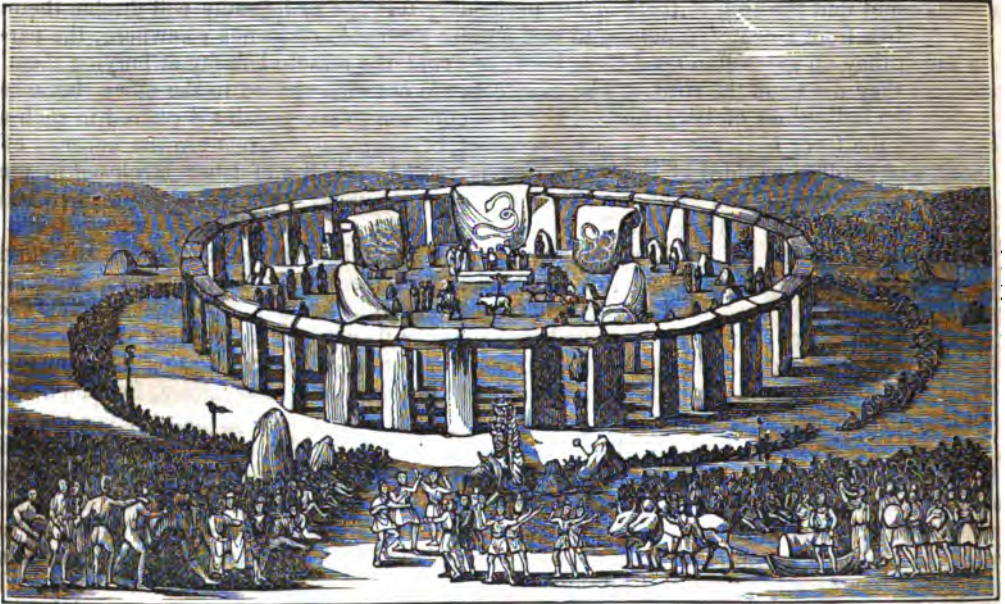
this purpose is not far from 8 million pounds, and about 1,200,000 people, in a population of 11 millions, receive assistance from it, though it is by no means shared by all who are miserably poor. Some accounts make the poor one third of the whole. Southey says, "There is no liberty for the poor in England; they are no longer sold with the soil, it is true, but they cannot quit the soil, if there is any probability that age or infirmity will disable them. If they remove from a crowded parish, to find a more profitable residence elsewhere, the parish to which they go may often send them back, to avoid the remote liability of burying them. Sometimes they die upon the road. The overseers are not men chosen to the office, because they show the indications of benevolence, nor is it common to see parish aid offered in such a manner, that the favor is increased by the manner of bestowing it. Great are the miseries of the poor, and hardly one third of their offspring is reared. A life of labor is closed in the almshouse, among rogues and lunatics. To this," says Southey, "the poor look as their last resting-place on this side of the grave."

The execution of the laws in England being much milder than the spirit of them, the good sense of the community is in advance of the humanity of the laws. Two persons, who attempted the life of the king, after a fair trial, were confined as lunatics. Notwithstanding the penalty of treason, no traitors are dismembered till after they are dead. Some offences are visited, besides other penalties, with attainder and corruption of blood; so that the estate is forfeited, and the children incapable of inheriting. The law of primogeniture, by which the eldest inherits the estate, is a necessary part of the system of aristocracy, and it keeps together, for ages, the immense territorial possessions of the nobility and others. The law is still in force, that inflicts the punishment of ducking on scolds, though it is never enforced. In China, this offence is a sufficient reason for divorce. In fact, there is but too much resemblance in spirit, if not in letter, between parts of the English law and the code of China. In England, a monarch would be at once deposed, who should inflict, arbitrarily and wantonly, a tenth part of the cruelty prescribed by the laws.

The elections in England may be said to be pure, that is, the voters are overawed by no force, or threats; but there is another species of influence, to which they are peculiarly liable in a country where both wealth and poverty are in extremes. This is bribery; and though there are heavy penalties against it, as well as against entertainments, it is practised with scarce a shadow of concealment. In some places, where the votes are few, the price of one is £50. No stranger can see an election in England, with a favorable opinion of a voter's estimate of the elective franchise. The elections are sometimes continued for weeks, and are scenes of riot, and drunkenness. The candidates, like Coriolanus, have to interfere and advance their own election, when they are found at the polls, adapting themselves to the popular humor, and haranguing the electors. There can hardly be too severe a description of an English election.

23. *Antiquities.* The antiquities of England are chiefly architectural, and those that are referred to the Druids are such as men would erect in the infancy of art, though they imply the power of moving large masses. The most simple of the druidical monuments are single upright stones, together with cairns or heaps of stones, some of which contain 100 cart loads. The cromlechs are huge flat stones, laid upon supporters like a table; and the rocking stones, which may have been somewhat indebted to art for their facility of motion, were probably used in the rites of the Druids, as near many of them basins or baths are dug in the rock. Near Penzance there is a rocking stone, called Logan Rock, of 320 tons, so poised that a man may move it like a cradle by applying his shoulder, and this could formerly be done with the force of one hand; it moves only in one direction. But the great monuments are the circles of stones, of which there are many; one at Abury, in Wiltshire, had 652 stones. Stonehenge, however, on Salisbury plain, is the most frequently visited. The whole is inclosed by a broad ditch, forming an exact circle. The structure was composed of different circles, or rather of 2 circles and 2 ovals, all concentric. The outward range of columns formed a circle, 310 feet in circumference, and consisted of 30 upright stones, 4 feet apart; each of these was about 17 feet above the ground, 6 feet in width, and 3 feet in thickness. These pillars had horizontal stones laid on their top, and were connected as in a ring or fence. They were secured by mortices and tenons, and their whole height was 30 feet. Of this outward circle, there are now standing 14 perpendicular stones, with 6 horizontal ones; 11 of the 14 are contiguous, and 5 of the 6. The next circle is 9 feet within the last; the stones are much smaller, being but 6 feet high, and 1 foot in thickness. They had no horizontal caps; only 8 or 10 of these now remain. The next inner range was an ellipse, in

which the stones were arranged in pairs ; each pair joined by a horizontal slab above, and making a complete gateway. The height, including the whole, was 26 feet. There were 5 of these gateways. Within these, was another range of 19 upright stones, tapering like obe-



Ancient Druid Temple of Stonehenge revived

lisks ; 6 of these are now standing. At one end of this innermost range, are the fragments of a huge stone, 16 feet long, 4 feet broad, and 20 inches in thickness. Stonehenge is indeed but a rude monument, but it is impossible to survey it without some of the awe which arises from beholding more classic temples. Near the main structure of Stonehenge, are several detached columns, that form no part of the original structure. In the structure, the largest stones are of the weight of 30 or 40 tons, and there is no quarry of similar stone within several miles. The vicinity is covered with great numbers of barrows or mounds of earth.

There are a few rude Danish monuments extant, but the vestiges of the Romans are nearly obliterated in England. There is the line of the wall, called the wall of Severus, running 68 miles from the Tyne to the Solway Frith. It was built A. D. 209. The facing stones have long been removed, and the plough has passed over many of their places. We know the description of the wall chiefly from Bede, who lived while some part of it was in good preservation.

In the city of Chester, as well as in various parts of England, are other remains. The parapet here is supposed to have been originally a Roman work. There are also the remains of a Roman bath, of which the roof is covered with cement ; and an altar has been found with this inscription : *Nymphis et Fontibus Leg. XX. V. V.* The old part of Chester, is an antiquity of itself. The houses are of every material, and many of them are nearly falling with age. The streets are in the second story of the houses, and the ground floor is open to the public ; a sort of covered gallery, said to be devised for better defence in the incursions of the Welch. The remains of the Saxons are not numerous, but they indicate strength in the manner of building ; but England is rich in the gothic edifices, the style of which was introduced by the Normans. Had the castles been still as needful as in those unquiet times, before every man's house was his castle, or had the monastic rule continued till now, there would have been hardly a ruined abbey or castle in England. A little repair will check the commencement of decay, which, if not checked speedily, becomes dilapidation. The cathedrals, used as metropolitan churches, are in excellent preservation, though they are kept so at considerable expense. Many of the castles suffered in the civil war, when they were used as forts, and assailed by cannon. Some of them are as old as the conquest, and others were erected several centuries after. They are of all forms and magnitudes, and generally in places

well chosen for defence. Dover castle, which, notwithstanding large sums expended to preserve it, is dilapidated, covers 30 acres, including all its appurtenances; and Kenilworth, which was built by Henry the First, and repaired in the time of Elizabeth, is but a shapeless ruin. There are, however, various castles that are entire, some of which are now used as prisons.



Tintern Abbey.



Ruins of an Ancient Feudal Castle.

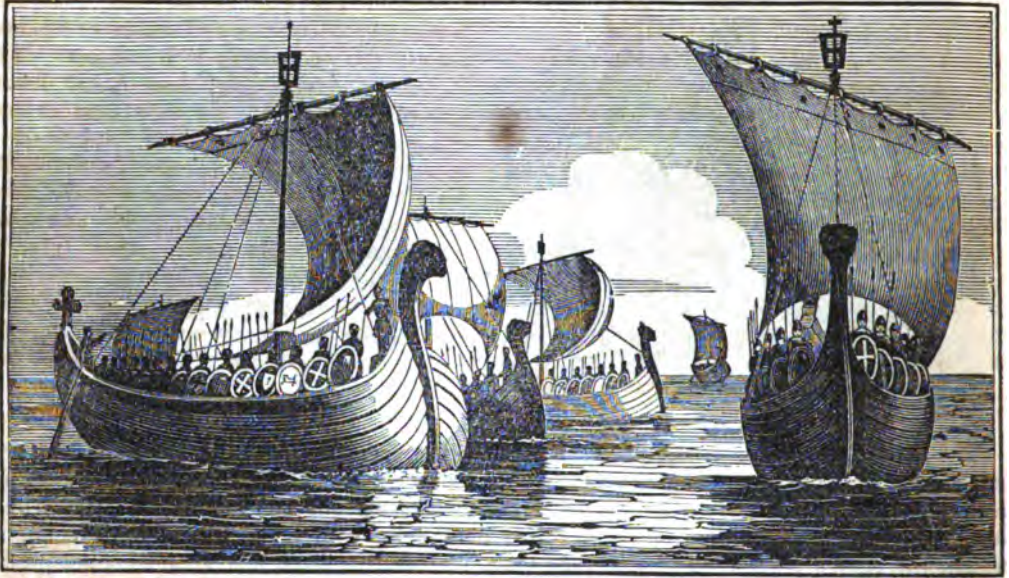
The abbeys, except in cities, have suffered no less than the castles. Many of them were magnificent in the extreme, and the very ruins strike the beholder with admiration. These are numerous, and generally placed in situations of great fertility and beauty. Tintern Abbey, on the river Wye, is, like many other ruins, overgrown with ivy. The roof is gone, and within, the edifice is seen to great advantage. The walls, pillars, and abutments are perfect. The grass is cropped within, and every loose stone is removed. It is as if Westminster Abbey were unroofed. There are many other abbeys, whose ruins are much visited and admired. The cathedrals are noble structures. The cathedral at Canterbury is a rich gothic building, 514 feet long, and 74 broad. One of the towers is 235 feet in height. The spire of the Salisbury cathedral is 410 feet in height. York cathedral, called by the citizens the Minster, was built in the time of Edward the First, and is an elegant and magnificent structure, not encumbered with buttresses without. The length is 525 feet, and the greatest breadth is 222 feet. It is 235 feet in height, and the largest window is 75 feet by 32. There is nothing that so much attracts the admiration of Americans in England as the cathedrals. There is nothing like them in his own country, and few edifices are more imposing in Europe. "Did man make it?" was but a natural thought of the Esquimaux at the sight of St. Paul's.



Britons Romanized.

24. History. The earliest inhabitants of England appear to have been Celts, who peopled this island from the Continent, about 1,000 years before the Christian era. The Goths after

wards visited the island, and drove the Celtic inhabitants into the interior parts. When Julius Cæsar invaded the country, he found it possessed by various rude tribes, who differed very little from the modern savages of America. The Romans subdued the country, and held possession of it for a period of 475 years from the first landing of Cæsar. It was



Romans invading Britain.

then invaded and conquered by the Saxons, who parceled out the territory into several distinct kingdoms. These were united in 827, into one kingdom under Egbert, king of Wessex, or the West Saxons, who was properly the first king of England.



Saxons in the time of Canute.

Under the Saxon kings, England was harassed by frequent invasions from the Danes. But in 1066, William, Duke of Normandy, made a descent upon the island, defeated and killed Harold, the Saxon king, at the battle of Hastings, and subdued the whole country. This event is what is denominated, in English history, the *Conquest*. It produced a total change in



A Saxon King, and his Armor-bearer.

With the outward forms of a monarchy, the government of England has been, to most practical purposes, an aristocracy or oligarchy, not greatly different from that of the republic of Venice. While the king possessed the right, nominally, to make war and peace, and appoint his ministers, he was completely under the control of the House of Commons, who, by granting or withholding the supplies of money, that great instrument of power, were enabled to bend him to their will. On the other hand, while the Commons proposed to represent the body of the people, the election of a large portion of their number fell into the hands of a few individuals, and that body lost the character of a popular assembly. A more equal representation of the people has lately been introduced; but the right of suffrage is still confined within narrow limits.

the laws, policy, and language of the English. The legitimacy of the recent kings of England consists in their descent from this foreign conqueror, although the exact order of succession has been occasionally disturbed. Wales was conquered and united to England towards the end of the 13th century. The Parliament, which, from obscure and inconsiderable beginnings, grew by degrees into significance, attained to such importance in 1648, as to condemn and put to death Charles the First. A republic, under Oliver Cromwell, as *Protector*, followed this event, but the death of Cromwell restored royalty. James the Second, the last of the Stuart kings, was a bigoted Catholic, and, attempting to force his religion upon the people, was driven from the throne. William of Orange received the crown by act of parliament, and the political liberties of England may properly be dated from this period.

CHAPTER IV. SCOTLAND

PHYSICAL GEOGRAPHY.

1. *Boundaries and Extent.* Scotland is everywhere surrounded by the ocean except in the southeast, where it is joined to England. It is 280 miles in length from north to south, and 130 miles is its greatest width; but the coast is extremely irregular and indented by large arms of the sea. It contains 30,800 square miles. It lies between $54^{\circ} 57'$ and $58^{\circ} 36'$ N. latitude, and $1^{\circ} 40'$ and $6^{\circ} 10'$ W. longitude. In shape, it has been fancifully compared to a hump-backed old woman, sitting upon the ground.



Scottish Mountain

2. *Mountains.* Scotland is in part mountainous, and in part hilly. The mountains are scattered over the surface, without running in uniform chains. They are generally from 2 to 4,000 feet in height, and a few peaks exceed 4,000. The *Grampians* are the most southern group. In the north are the *Highlands of Caithness and Inverness*, and here is *Ben Nevis*, the highest mountain in Great Britain, 4,370 feet above the level of the sea, and capped with perpetual snow. On one side, it exhibits a precipice 1,500 feet perpendicular, and the prospect from its summit is indescribably grand and magnificent. The *Pentland Hills*, in the south, are very picturesque, but not lofty. Most of the mountainous parts abound with craggy rocks, deep, narrow dells, and tumbling torrents; and their ruggedness and sterility must ever defy the utmost efforts of human industry to render them productive.

3. *Rivers.* The rivers are numerous, and, descending from a high region, their currents are broken and rapid. They are of little use in navigation. The *Forth* runs easterly into the German ocean, and at its mouth expands into a wide bay or *Firth*. It is a very crooked stream, and through all its windings has a length of 200 miles; part of it is navigable for small vessels. The *Tay* has the largest body of water, with a shorter course. It flows in the same direction, and has a navigation near the sea for ships; it particularly abounds in salmon. The *Clyde* flows to the sea on the opposite side. It is much broken by falls, but its mouth admits vessels of 400 tons. The *Tweed* is a beautiful stream, running into the German ocean near the English border. It flows 60 miles in a straight line, and abounds in trout and salmon.

4. *Lakes.* These are called *Lochs* in Scotland. The most remarkable is *Loch Lomond*, near the sea in the southwest. It is 30 miles long, of an irregular breadth, but generally narrow. It is sprinkled with islands, some of them large and finely wooded; the shores are everywhere highly beautiful and picturesque. The mountain of *Ben Lomond*, which overlooks the northeastern part, presents a prospect of unequalled grandeur. *Loch Katrine* in the same neighborhood, is another beautiful sheet of water. *Loch Leven*, in Fife, is about 12 miles in circuit, and contains several small islands, upon one of which Mary, Queen of Scots, was confined by her nobles. In Ayrshire, is *Loch Doon*, 7 miles in length, the waters of which flow into the sea by a river of the same name. The banks, of both river and lake, are much admired for their beautiful scenery, and have obtained celebrity from the muse of Burns; who was born here. There are many other charming lakes in different parts of the country.



Burns's House.

however, rather impart gloom than beauty to the landscape; their sullen brown waters present the idea of unfathomable depth, and their borders exhibit no cheerful verdure to relieve the eye. The most westerly of the Hebrides is *St. Kilda*. It is small and rocky, yet inhabited. Its shores are composed of enormous precipices, worn by the sea into caverns, often with roofs more lofty than the ceiling of a gothic cathedral. These shores are the resort of vast varieties of sea-fowl, which the islanders pursue at immense hazards, by swinging with ropes



Bending Pillars of Staffa.

cence the most splendid artificial temples and palaces in the world. Many of the columnar rocks in this island are bent and twisted in a remarkable manner.

5. *Islands.* The *Hebrides* or *Western Islands* lie on the western coast of Scotland. They are about 300 in number. The largest is *Lewis*, 87 miles long. The next in size are, *Skye*, *Mull*, and *Islay*, *Arran*, *South Uist*, and *Jura*. Most of them are small. They are rocky and barren, with hardly a single tree or even a bush upon them. On the shores are some swampy tracts and peat bogs. The vegetation consists principally of heath and moss. But the most remarkable feature of these islands is the great number of lakes which they contain; these,

from the perpendicular cliffs. There are 87 of these islands inhabited, and several under good cultivation, producing tolerable crops of grain, pulse, and potatoes. The inhabitants are about 70,000. Their only articles of trade are horned cattle, sheep, fish, and kelp. One of the smallest of these islands, called *Staffa*, is remarkable for a singular basaltic cavern, called *Fingal's Cave*, 227 feet in length and 42 wide. The entrance resembles a gothic arch, and the floor of the cave is covered with water. The walls of the interior are formed of ranges of basaltic columns, irregularly grouped. This natural architecture is said to surpass in grandeur and magnificence



Sea Fowl.

numbers of sea-fowl frequent the rocky cliffs of these islands, and one of the chief employments of the inhabitants is bird-catching.



Bird Catching in the Shetland Isles.

At the northern extremity of Scotland, lie the *Orkneys*, or *Orcades*, about 70 in number, but less than half of them are inhabited. They are rocky and have a melancholy appearance, with little vegetation besides juniper, wild myrtle, and heath. The soil is boggy or gravelly; some of the islands contain iron and lead. The sea in this neighborhood is very tempestuous. In June and July, the twilight, which continues through the night, is sufficiently strong to enable the inhabitants to read at midnight. The population is about 30,000. They have some manufactures of linen and woollen, and have a trade in cattle, fish, oil, and feathers. Vast

The *Shetland Islands* lie about 60 miles northeast of the Orkneys. They have a wild and desolate appearance; but 17 of them are inhabited. Their vegetation is more scanty than that of the Orkneys, and their soil, for the most part, is marshy. The shores are broken and precipitous, and excavated by the sea into natural arches and deep caverns. From October to April, perpetual rains fall, storms beat against the shores, and the inhabitants are cut off from all communication with the rest of the world; but the aurora borealis exhibits, at this season, a brightness equal to that of the full moon. The population is about 28,000; the people live by fishing, and the manufacture of coarse woollens.

6. *Bays, Straits, and Harbors.* The coast is everywhere rocky, and indented by inlets and arms of the sea. The *Firth of Forth* extends a considerable distance inland, and affords good anchorage and shelter in every part. The *Firth of Tay* is much narrower. Towards the north, are the Firths of *Murray* and *Dornock*, the former of which is 80 miles in length; the latter is the *Portus Salutis*, or safe haven of the ancient geographers. All these northern shores are cold and dangerous, with formidable and rocky headlands. A narrow and tempestuous sea, at the northern extremity, called the *Pentland Firth*, divides the Orkneys from the main land. Proceeding south, along the western coast, deep inlets and rocky islands occur at every step. In the south, is the *Firth of Solway*, a wide bay, forming part of the boundary between Scotland and England, in which the tide rises with astonishing rapidity.

7. *Climate.* The distinguishing feature in the climate, is the excess of moisture. Fogs and drizzling rains prevail in most parts for the greater portion of the year. Considerable snows fall in winter, but are soon melted; sleighs or sledges are never used, but the waters are sometimes so frozen, as to permit skating.

8. *Soil.* In many of the valleys or *straths*, there are tracts which are productive, but the soil is much inferior to that of England. A great part of the country may be considered as absolutely barren. The mountains are naked, and trees of native growth are scarce in every part.

9. *Geology.* Scotland not being separated from England by any great natural boundary or intervening sea, the geology of the adjacent districts in each is nearly the same; but, if we take a general survey of the whole country, we shall find the great features of the geology of Scotland very different from those of England. If a line be drawn in a northeast direction, from the mouth of the Clyde to Stonehaven, on the eastern coast, nearly the whole of Scotland, south of that line, is composed of transition rocks, covered in many parts by coal-measures, traps, or red sandstone. On the north of this line, nearly the whole country is composed of primary rocks of granite, gneiss, and mica slate, covered, at the feet of the mountain chains, with beds of conglomerate and red sandstone. The upper secondary strata, so abund-

dant in England, scarcely appears in Scotland. The general bearing of the different mountain ranges, is from northeast to southwest.

10. *Minerals, Quarries, &c.* Lead, iron, and coal, are the most abundant minerals. The lead mines are in the southern parts. Coal is very plentiful, and it is supposed the largest untouched bed of coal in Europe, is in the south of Scotland. Antimony and copper, in small quantities, also occur. Cobalt is now afforded by a mine which formerly yielded silver.

11. *Face of the Country.* Two thirds of the country are mountainous. It is generally considered as divided into two parts; the mountainous region, called the Highlands, in the northern and central part; and the comparatively level country in the south, called the Lowlands. In the north, the mountains present nothing to view, but heath and rock, with innumerable lakes and pools, darkened by the shade thrown from enormous precipices; the whole forming a landscape wild and desolate beyond conception. In the central parts, the aspect of the mountains is less forbidding. In the south, is every kind of rural variety, hills, vales, and cultivated plains.

POLITICAL GEOGRAPHY.

1. *Divisions.* Scotland is divided into 33 counties* or shires. These are subdivided into 984 parishes.

2. *Canals.* The *Caledonian Canal* extends from Inverness to Fort William, uniting the Moray Firth with the Atlantic. Its length is 59 miles, including several lakes, through which it passes; the artificial navigation is 22 miles. This canal is 100 feet wide at the surface, 50 feet at the bottom, and 20 feet deep, being passable by 32 gun frigates. At one place, is an ascent of 94 feet by 13 locks, and a descent of 90 feet by 12, called Neptune's staircase. This canal cost nearly a million sterling. The receipts afforded by it, do not pay for keeping it in repair. Since its construction, upwards of a million of forest trees have been planted along its borders. The *Forth and Clyde Canal* unites the river Carron, running into the Forth, with the Clyde, at Glasgow. It is 35 miles long, and has 39 locks. Its width, at the surface, is 56 feet, and its depth 8 feet. It has 15 aqueducts over roads, streams, &c. This canal was begun in 1777, and finished in 1790, at an expense of above £200,000 sterling. The *Union Canal* is a branch of this work, extending to Port Hopeton, near Edinburgh. The *Monkland Canal* extends from the Forth and Clyde canal to Monkland, and is used for the transportation of coal and limestone to Glasgow. The *Crinan Canal* crosses the peninsula of Kintyre. The *Androssan Canal*, from that place to Glasgow, is not yet completed.

3. *Cities and Towns.* *Edinburgh*, the capital of Scotland, stands upon the southern shore of the Firth of Forth, a mile and a half from the sea. Its situation is remarkably picturesque. It occupies three high ridges of land, and is surrounded on all sides, except the north, by naked, craggy rocks. The middle ridge is the highest, and on either side is a deep ravine. The



St. Anthony's Chapel.

more ancient part of the city occupies the two southern ridges. High street runs along the middle eminence, in nearly a straight direction, for about a mile, and exhibits a very grand prospect. With the exception of the principal avenues, the other streets of what is called the Old Town, are only narrow, dirty lanes, among houses, some of them 10 and 11 stories high. The New Town presents quite a different aspect. It is built on the northern ridge, and its streets and squares are not surpassed, in regularity and elegance, in any part of the world. It communicates with the old town by a bridge, and an immense mound of earth crossing the deep lock or ravine between them.

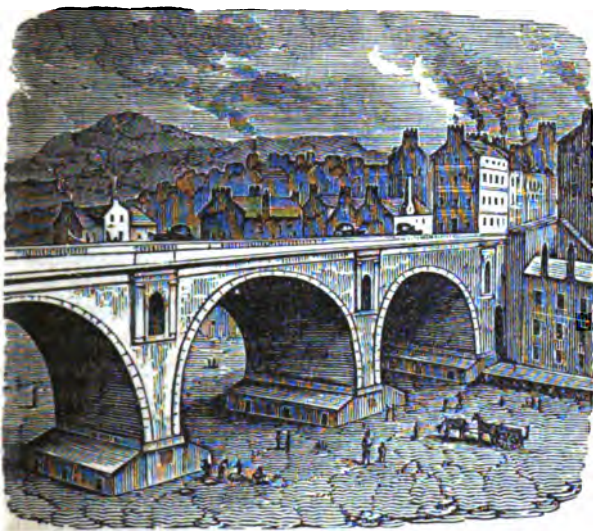
On the slope of Arthur's seat, toward the East, may still be seen the ruins of the ancient chapel and hermitage of St. Anthony, mentioned in Scott's tale of the Heart of Midlothian.

* *Northern.* — Orkney Islands, Caithness, Sutherland, Ross, Cromarty, Inverness.

Midland. — Argyle, Bute, Nairn, Elgin, Banff, Aberdeen, Kincardine, Forfar, Perth, Fife, Kinross, Clackmannan, Stirling, Dumbarton.

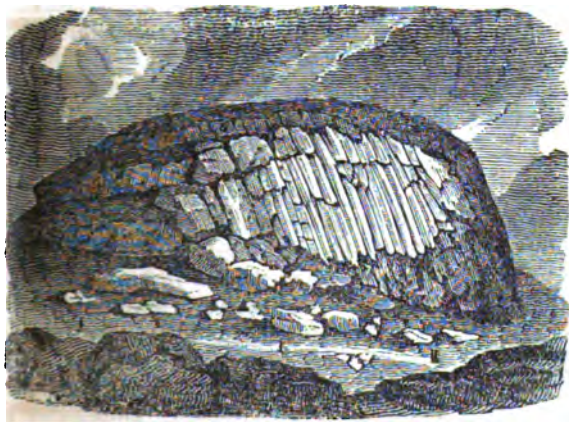
Southern. — Linlithgow, Edinburgh, Haddington, Berwick, Renfrew, Ayr, Wigton, Lanark, Peebles, Selkirk Roxburg, Dumfries, Kirkcudbright

The castle of Edinburgh is an ancient fortress on a rugged rock, mounting abruptly to the height of 200 feet. It stands at the western extremity of High street, and the view from its summit always excites the admiration of a traveler. Holyrood House, for many centuries the residence of the kings of Scotland, is a quadrangular edifice in the eastern part of the city,



The Fish Market at Edinburgh.

and upon both heights public walks have been laid out. The royal exchange, the register office, the university building, and some of the churches, are among the principal public edifices. There are 48 churches and meetinghouses, numerous hospitals, &c. in Edinburgh. The manufactures of the town are chiefly those intended to supply the consumption of the inhabitants; the trades of bookselling and printing are carried on to a great extent; the *Edinburgh Review* and *Blackwood's Magazine* are the most celebrated journals. The town is chiefly supported by its courts of justice, whose jurisdiction extends over all Scotland, and is noted for its literary character, a distinction which has acquired for it the surname of the Modern Athens. *Leith*, the port of Edinburgh, is about 2 miles distant from it, but



Samson's Ribs.

and at present offers a shelter to the dethroned king of France, as its neighborhood does to the insolvent debtors of Edinburgh. In the centre of the city, is a vast pile, comprising several edifices around Parliament Square, which contain a number of large libraries, one of which, called the Advocate's Library, has 150,000 volumes.

The *Fish Market* occupies a very convenient spot under the arches of a bridge which crosses the ravine between the old and new town. It is surrounded by covered stalls.

From the plain on the east of the central bridge rise the Calton Hill and Arthur's Seat; the latter reaches the height of 800 feet, presenting the rocky outlines of Salisbury Crags; on the summit of the former is a monument to Nelson, a circular column, 108 feet high, and upon both heights public walks have been laid out. The royal exchange, the register office, the university building, and some of the churches, are among the principal public edifices. There are 48 churches and meetinghouses, numerous hospitals, &c. in Edinburgh. The manufactures of the town are chiefly those intended to supply the consumption of the inhabitants; the trades of bookselling and printing are carried on to a great extent; the *Edinburgh Review* and *Blackwood's Magazine* are the most celebrated journals. The town is chiefly supported by its courts of justice, whose jurisdiction extends over all Scotland, and is noted for its literary character, a distinction which has acquired for it the surname of the Modern Athens. *Leith*, the port of Edinburgh, is about 2 miles distant from it, but the two places are now connected by continuous ranges of buildings. *Leith* carries on an active trade with the Baltic and other parts of Europe, and has an extensive coasting trade. The Greenland whale fishery is also prosecuted from *Leith*. Its docks, pier, and breakwater deserve mention. Population of the two places, 140,000. In the neighborhood of Edinburgh is a rock called *Samson's Ribs*, which attracts the curiosity of strangers, by the singular appearance of one of its faces, which exhibits a mass of strata nearly vertical, and bearing some resemblance to the ribs of an enormous giant.

Glasgow, the principal city of Scotland in point of population, extent, manufactures, and commerce, is situated upon the Clyde. It is well built, with straight, spacious, and neat streets, and contains several pretty squares and handsome public buildings. Its cathedral is the finest Gothic church in Scotland, and its university is much celebrated. There are several handsome bridges over the Clyde, and the quay extends a quarter of a mile down the river, which is navigable for vessels drawing 12 feet of water, to Glasgow. The

trade of the place is important and flourishing, and its cotton manufactures are very extensive. Population, 274,000. Large vessels stop 20 miles below Glasgow, at *Port Glasgow*, a pretty little town with 5,200 inhabitants. The shipping of the two places amounts to 48,000 tons. The river has lately been deepened as high up as Glasgow.

The name of *Aberdeen* is applied to two distinct places, which, however, are situated near each other, and now form one borough. The city of *Old Aberdeen* stands on the Don, and the town of *New Aberdeen* on the Dee. Aberdeen is the principal commercial port of Scotland, and is inferior only to Glasgow in the extent of its cotton manufactures. The citizens are also largely engaged in the Greenland whale fishery. Shipping of the port, 46,200 tons; population, 63,000. The harbor of Aberdeen is spacious and safe, and a large pier has been erected. There are two universities here, King's College in Old Aberdeen, and Marischal College in New Aberdeen. To the north of Aberdeen is *Peterhead*, a small town, with a good harbor, engaged in the whale fishery. Its mineral springs are much resorted to.

Dundee is an important trading town on the Firth of Tay, with a good harbor improved by piers and docks. The shipping of the port amounts to 32,000 tons, and the population is 63,000. The manufactures, commerce, and population are increasing. Opposite the mouth of the Tay, at the distance of several leagues from the shore, is the Bell Rock lighthouse, erected upon a rock, which is covered by the sea at high tide.

Perth, higher up the Tay, an old city, has been the scene of many interesting transactions recorded in Scottish history, and was once the residence of the kings of Scotland. It is situated under the Grampian Hills; the scenery around is highly picturesque, and the approach to the city is remarkably beautiful. Its cotton and linen manufactures are extensive, and there are several literary establishments here. Population, 20,000.

Paisley is a large and opulent manufacturing town, near Glasgow, with 60,000 inhabitants. Muslins, silks, and coarse cotton goods are extensively manufactured, and there are also distilleries and foundries here. A few miles north of Paisley is *Greenock*, a flourishing, trading, and manufacturing town, with one of the best harbors in Scotland. The shipping of this port amounts to 36,250 tons; population, 37,000.

Inverness, the most important town in the northern part of Scotland, and considered the metropolis of the Highlands, is situated at the eastern termination of the Caledonian canal. It contains a royal academy and other public institutions. Population, 11,500. A few miles from Inverness, is Culloden Muir, celebrated as the scene of the defeat of the adherents of the Stuarts, in 1746.

Stirling, on the Forth, is a place of great antiquity, and of much note in Scottish history. It is situated on an eminence, terminating in a rock, upon which stands Stirling castle. Population, 10,700. In the surrounding districts are *Bannockburn*, where Bruce defeated the English forces; *Falkirk*, celebrated as the scene of two famous battles, with 8,200 inhabitants, and *Carron*, noted for its extensive iron foundry; the species of ordnance, called carronades, derives its name, from being first cast here.

Among the other towns of Scotland, *Dunfermline*, noted for its linen manufactures, contains the remains of a celebrated abbey, and has a population of 13,000; *Montrose*, on the eastern coast, is an active trading town, with 14,000 inhabitants; *Dumfries*, in the southwest on the Nith, has considerable trade and manufactures, with 13,000 inhabitants; *St. Andrews*, once a large town, but now reduced to an inconsiderable place, contains a celebrated university; *Kilmarnock*, a flourishing and increasing manufacturing town in Ayrshire, has 19,000 inhabitants; *Lanark* contains extensive cotton mills; *Dumbarton* is celebrated for its castle. *Lerwick*, the capital of the Shetland Isles, and *Kirkwall*, capital of the Orkneys, have each about 3,000 inhabitants.



Gretna Green.

The name of *Gretna Green* must be well known to every reader of romances

It is a little village on the English border, where, for a hundred years, fugitive lovers have been accustomed to resort from England to avail themselves of the ready convenience of a Scotch marriage. In this country, it is only required of a couple to declare their wish before a justice of the peace, or other competent witness, and the marriage is legally effected. Sixty or seventy pair of runaways are usually married every year at Gretna Green. An old blacksmith was, for a long time, the priest of Hymen at this noted spot.

4. *Agriculture.* The articles cultivated are generally the same as in England. Oats are the principal crop, except in the most fertile districts. Potatoes are cultivated somewhat extensively, and in some places hemp.

5. *Commerce.* Both the commerce and manufactures of Scotland have grown into importance since the union with England. Commerce has flourished chiefly since the middle of the last century. *Greenock* and *Aberdeen* are the most important commercial places. The shipping of Scotland amounts to 300,000 tons, or about one fourth less than that of the State of Massachusetts; annual value of imports, 24,000,000; of exports, 28,000,000.

6. *Manufactures.* These consist of cotton, woolen, linen, iron, hats, paper, sailcloth, pottery, and small quantities of most of the articles made in England. The localities of many of these establishments have already been designated. At *Carron*, in the southern part of the kingdom, are the most important iron founderies in Great Britain. They employ 2,000 workmen, and cast above 4,000 cannon annually. The total value of the yearly manufactures of Scotland is estimated at 70,000,000 dollars, employing 300,000 persons.

7. *Fisheries.* The whale and herring fisheries are considerable sources of wealth. The whale ships are principally employed in the Northern Seas. The gathering of kelp on the shores of the Western Islands once employed 120,000 persons; but the business has now declined in consequence of the substitution of a cheaper alkali in manufactures. The number of herring taken on the coast is immense; the fishermen go in small craft, called *Busses*.

8. *Inhabitants.* There are, in Scotland, but few residents except the natives; though these differ much in the lowlands and highlands. The Scotch are more bony and lean than the English, and corpulence is rare. They have generally hard faces, and high cheek bones, and their countenances have a hardy and sometimes a weather-beaten appearance. The classes are substantially the same as in England, though, as there is much less wealth, there is less distinction between the rich and the poor.

The Scotch fishwomen, or fishwives, as they are called, are worthy of notice, forming a distinct and separate race, who associate almost solely with one another; and whose features, dress, habits, and occupations are different from those of all the lower classes in Scotland. They are of *Norse* extraction; and although their language is broad Scotch, it is distinguished by a peculiar slang, understood only by themselves. They reside entirely at *Newhaven*. When their husbands return from a fishing expedition, it is their office to be in readiness to mend and dry the nets, and to carry the fish up to the Edinburgh market in baskets, called *Creels*. They also cry the fish through the streets, carrying the creels upon their backs, and by these means collect a considerable quantity of money, which they usually spend in dress. Their love of finery, and of bright, showy colors, is excessive. Their dress is a tri-cornered handkerchief, of a bright color, pinned round the head in a very becoming manner; short, red, woolen petticoats, and checked aprons. There are several shops in the old town of Edinburgh, chiefly resorted to by these women, where they buy prints of the most extravagant and showy pattern, to wear on Sundays. They are, when young, remarkable for the brightness of their complexion, fine eyes, and white teeth, and even for grace and regularity of features; but hard work and intemperance render them prematurely old. They are an immoral race, proverbial for their love of profanity, cheating, drinking, and fighting. When George the Fourth visited Edinburgh, the first persons who congratulated him upon his arrival were a band of Newhaven fishwives, who rowed out in boats to the side of the royal yacht, attired in all their finery, and saluted the royal ears with three cheers, more remarkable for noise than harmony.

9. *Dress.* The dress of the higher and middling classes, in Scotland, is in every respect similar to that of persons of the same rank in England, with perhaps this difference: that as London takes the lead in all matters of taste, the Scotch may be a few days or weeks behind their English neighbors with respect to the last fashionable novelties. The dress of the low land peasants is also pretty similar to that of the lower classes among the English, although the costume of the women in Scotland seems to retain a more marked and distinctive character. It consists of a white mob cap, a short gown, made of coarse print, and a coarse, woolen pet-

ticoat, either dark blue or red. The sleeves are usually tucked up above the elbow. Some times they have coarse shoes and stockings, but not unfrequently bare feet. On Sundays, they wear bonnets and gowns in imitation of their betters. Although the lowland dress is now adopted in most parts of the highlands, there are still many parts of Scotland, in the neighborhood of the Lochs, in the west of Argyleshire, &c., where the ancient costume is preserved, though loose tartan trowsers, called *trews*, are usually substituted for the kilt. The dress of a Scotch shepherd is a jacket and trews of coarse, gray tartan, a gray tartan plaid, and a flat highland bonnet. In the Western Islands, where the inhabitants have necessarily less communication with the lowlanders than the highlanders on the main land, the dress is somewhat different. The men wear the highland bonnet, blue jacket, and trowsers, usually manufactured in the island, sometimes composed of tartan, and at other times of a coarse woollen stuff; the women wear a piece of tartan over their heads, something in the form of a veil; a piece of tartan round their necks, fastened with a large brooch of tarnished silver, in the form of a heart: an ornament which is carefully handed down from one generation to another; extremely short, woollen petticoats, with jackets of the same, the



Scotch.

sleeves of which are tucked up above the elbow, for convenience in working; all the drudgery being performed by the women, while the men lie at ease, chewing tobacco.

The true Highland costume consists of a tartan jacket, a kilt, which is a short petticoat of tartan, plaited all round, and descending within two inches of the knee. Tartan hose are stockings coming near the knees, and gartered with red, worsted riband. A Highlander has a peculiar pride in the manner of tying this garter, which, it is supposed, no Lowlander can succeed in doing perfectly. Large, silver buckles are worn in the shoes. In the dress of a gentleman, the bonnet is of tartan velvet, with a diced border; the common Highlander's is of tartan worsted. This is surmounted by a large, black plume, fastened with a cairngorm. A chieftain wears, instead of this plume, a long eagle's feather, which no other has a right to adopt. Round the waist is a leathern belt, to which is attached the sporran, a purse made of long, white goat's hair, intended for holding tobacco. In the belt, is also stuck a pair of pistols, a snuff-mill, and a dirk. If the wearer is a person of distinction, the handle of the dirk is highly studded with jewels. A scarf or plaid is wrapped around the waist, and thrown over the shoulder, where it is frequently fastened with a large cairngorm or Scotch pebble. The dress of a Highland Regiment is similar, except that the jackets are red, instead of tartan; the caps are considerably higher, and the black plume larger, and there are no ornaments of jewelry. Gentlemen who have property in the Highlands are generally extremely fond of adopting the native costume, upon any occasion which may warrant a similar exhibition; such as a public assembly, a fancy or Caledonian ball at Almacks, or a dinner given by the Highland Society, whether in Edinburgh or London. Young exquisites, who have probably never visited their barren estates, may be seen walking down Bond street, followed by a gigantic Highland piper in full costume, who seems to look upon the passing multitude with an eye of sovereign contempt. If the laird gives a dinner to a party of fashionable guests, the piper marches up and down before the windows or through the apartment, blowing with all his might; the drone of the bagpipe effectually drowning the hum of conversation.

10. *Language.* The language used in the Lowlands is somewhat different from the English, but though a stranger is puzzled at the pronunciation, the natives understand whatever is spoken in English. A knowledge of this dialect has been spread wherever English is known, by the novels of Scott and Galt, and the poems of Burns. In the highlands and Hebrides, the general language is the Erse or Gaelic; and little English is known except by the higher classes. The Gaelic is used by more than 300,000 people. In the Orkney and Shetland Isles the English is universal.

11. *Manner of Building.* The private dwellings in Scotland are less elegant and commodious than in England. In the ancient towns, which have a dismal appearance, the houses are generally of stone, and many have the ends to the street; in some, the entrance is in the

second story, by means of exterior stairs, and the descent to the ground floor is within. The cottages are many of them mere hovels, in which there is little comfort, and no attempt at neatness. These are thatched, and the smoke is conducted out through a barrel placed in the thatch. At the front door is the dunghill, which is often the favorite station for the children. In the Highlands, which term includes all places where the Erse language is used, they are more miserable still ; there is no chimney, and the smoke of the peat fires is left to escape by a hole in the roof, which is not over the fire, lest the rain should extinguish it. The smoke is allowed to circulate through the building, and the whole interior is glistening with soot. Some have no other door than a blanket or hide. There is often but one small window, and this is frequently without glass.

12. *Food and Drink.* In these, the Scotch differ considerably from the English. Potatoes are universal, and oatmeal is generally made into a coarse, but favorite cake, which is considered so national, that Scotland is sometimes called the *Land of Cakes*. It is preferred to the bread of maize, which has been imported in seasons of scarcity. It is made, also, into a porridge of a consistency rather less than that of mush or hasty-pudding. The *haggis* is a dish peculiar to Scotland, where it is much esteemed, though it seldom has the favor of strangers. It is made of the entrails of a sheep chopped small, with herbs, onions, suet, and spices ; it is enclosed in the maw, boiled, and brought upon the table in the envelope. A sheep's head singed is another peculiar dish ; it is not skinned, but the wool is burnt off with a hot iron. Kail is more consumed than any vegetable of a similar kind. In Scotland, as in England, there is less profusion of food than in the United States.

Whisky, in the Erse language, signifies water, and, in the Highlands, it is almost used as such. It is generally distilled from barley ; and no man there is so abstemious as to omit a morning dram, which is called a *stall*. The consumption of whisky is very great ; and this spirit is perhaps the least deleterious of all the forms of alcohol, and less hurtful in the humid climate of the Highlands, than elsewhere. It is drank in large quantities, yet there is not a great proportion of the intemperate in Scotland. Even in Edinburgh and Glasgow, raw whisky and punch are found at dinner parties ; and the ladies, as well as gentlemen, sometimes partake moderately of each. This, however, is less common than formerly ; among the refined classes, there is little departure from the customs of England.

13. *Diseases.* These are such as are common to a cold and humid climate, as pulmonary complaints and rheumatism. Scotland is, however, in the main salubrious, and the people are hardy and exempt from disease.

14. *Modes of Traveling.* The roads in Scotland are excellent, and some of those made over the mountains, designed to render intercourse with the Highlands more frequent, and thus gradually remove the barbarism of the people, are monuments of labor and art. The coaches and steamboats in the southern parts are good ; but the steamboats are, in no part of Great Britain, so commodious and elegant as in the United States. The inns are of a lower grade than those of England ; and in the Highlands there are few of any kind, and what there are, are mere alehouses, little better in accommodations than the common huts. In some of them there are no beds, and the beds that are found are not the exclusive privilege of one traveler. Johnson relates, that as he was stepping into one of these, there started up from it "a Highlander, black as a Cyclops from the forge." Among the Highlands, and under this term we include the Hebrides, there is no traveling but in boats and on horseback. The traveler mounts one of the small ponies, and a Highlander runs by his side as an attendant. It is to be remarked, that in Scotland the "real and nominal distances rarely agree," and when a traveler asks the distance of one place from another, he seldom receives any very definite information.

15. *Character, Manners, &c.* The Scotch are adventurous, yet cautious ; they have much shrewdness, though they practise little cunning or deceit. They are persevering, thrifty, intelligent, and moral. They are grave and sedate, and the Highlanders so much so, that they seem almost melancholy. The wild solitude in which they live contribute to this. The Scotch are much attached to their country, and are always reluctant emigrants ; in foreign countries they are distinguished for their attachment to each other. They are the most loyal subjects of the crown, though they have heretofore been often in rebellion. They have, in a great degree, the principle of fidelity ; and a Highlander, like an Arab, knows not how to betray.

When Charles Edward was wandering about the Highlands, and a price of £30,000 was set upon his head, his retreats were known to numbers, and he was sheltered for awhile by two common thieves, one of whom was afterwards hanged for stealing a cow of the value of 30 shillings

Before he was executed, he took off his bonnet, and thanked God, that he had never betrayed confidence, never plundered the poor, and never refused to share his bread with the needy and the stranger.

The Highlanders are even now much attached to the persons of their chief, though the time is past when they would avenge his quarrel without examining its merits. The Scotch are very hospitable, and in this the traveler sees a favorable difference between Scotland and England. They are also very social, and their suppers are delightful meetings. They are held at about nine, and the company separate before twelve. These meetings have little formality, but great freedom and cheerfulness. When they separate, they join hands and sing some little song of adieu. The dinners are more formal; wines are circulated freely, and when the cloth is removed, the lady of the house asks the individual guests, without circumlocution, "will you take a dram?" This consists of whisky, and is taken unmixed; even the women drink. Suppers, as well as dinners, are closed with hot toddy. All this must be understood, however, as now applicable to fewer families than in former days. Though Edinburgh has ceased to be the seat of a court as in former days, yet its society possesses a peculiar and somewhat national character. It is the focus of learning and letters, many of the nobility reside in the town and immediate vicinity, and though Holyrood* is deserted, or but the transient

* During the visit of the late king, George the Fourth, to Edinburgh, he held what is called a "Drawing-Room" at Holyrood House, the following sketch of which has been furnished us by an individual who was present. The description of the dresses and etiquette is equally applicable to the drawing-rooms held at St. James's, and affords a vivid picture of what may be regarded as the highest occasion of mere court ceremony in Europe. Holyrood, which for a long period of years had seen herself deserted by her sovereigns, was now about to be enlivened by the royal presence. His Majesty had made known his intention of holding a drawing-room, and a general note of preparation was sounded throughout the kingdom. All the taste of the Scottish upholsterers was submitted to the judgment of the Edinburgh dignitaries, and various consultations were held as to the most appropriate method of rendering the apartments fit for his Majesty's reception. The ducal chambers were at length fitted up with a temporary, but befitting magnificence. The large hall, which was allotted for the presence-chamber, was decked in all the splendor of gold and crimson drapery. A throne and canopy of crimson velvet and gold, was erected at the upper end of the apartment. The road between Dalkeith and Holyrood was covered with couriers and messengers whose important faces of consultation and deliberation showed their fears, lest any breach of etiquette should offend the criticizing eye of the most polished sovereign in Europe. But while the Lord Provost, with the bailies and magistrates laid their heads together to commune upon these weighty matters, a fairer portion of the community were engaged in deliberations of another description. All that Scotland had of beauty or fashion, of rank or wealth, had congregated to the metropolis on the occasion of the King's visit. The peer left his hall, and the peasant his cottage, to welcome their sovereign to the land of his forefathers. Every hotel, every lodging, every corner of every house was crowded to excess. The difficulty of obtaining any mode of conveyance became so great, that various fashionable and distinguished characters had made their entry in carts and wagons.

A drawing-room, however common in London, even there excites a sensation; and on no occasion is greater rivalry displayed whether of dress or equipage. Loyalty and vanity go hand in hand; the former serving as an excuse for the latter. But in Edinburgh, where no court has resided for centuries, the feeling was totally different. Even among those to whom the charm of novelty was worn off, the idea of a court in Holyrood conjured up a thousand romantic feelings. Around that ancient palace is thrown a spell which time can never dissolve. Surrounded as it is by mean and uninteresting buildings, who can forget, that these grass-grown entries have echoed to the tread of Scotland's proudest chivalry? that by that gate, Scotland's fair Queen has rode forth with hawk

and hound and hunting-horn, surrounded by her gallant train? The walls still seem to ring to the silver tones of her voice, and the blood-stained-floor yet gives evidence of the fierceness of those tumultuous spirits who darkened her youthful days. A king of the Hanoverian line was now about to tread the halls of the Stuarts, and Highlander and Lowlander, forgetful of all ancient feuds, alike prepared to do him homage. Old peeresses, who since the days of hoops and of Queen Charlotte, had resided in their mouldering family mansions, now began to pull out their faded court finery, and to sigh over the manifest necessity of procuring new dresses. Their family coronets looked antique and lustreless. The change was in the brows that bore them. Young peeresses, who had not yet been presented at court, rejoiced in the prospect of displaying their new coronetted carriages, and new set jewels, and all the elegance of white and silver, which a bride must of necessity wear, when she first comes into the presence of her sovereign. Nearly every lady in the kingdom, whose family or fortune could in any way entitle her to appear at court, felt a flutter of expectation, either as to her personal appearance, or suitable deportment, in a situation which was entirely new to her. Some there were, indeed, to whom there was little novelty in the prospect. Young ladies who had passed the ordeal of a London spring; or antiquated dowagers who had carried their rouge and their diamonds through twenty or thirty successive London seasons.

Yet, generally speaking, the occasion was one of unusual interest and excitement. The important matter of choosing a train of a becoming color caused many a sleepless night. Velvets and satins, feathers and finery of every description, floated in bright disorder before their vision both mentally and bodily. The tradesmen disposed of their goods as if by magic. The milliners' rooms were thronged from morning till night with a fair bevy of eager and anxious faces. The dancing-masters gave private lessons in the most approved mode of performing a court-courtesy; and then came the important question of how the train was to be managed. Ladies who had been at court instructed their daughters how to hold the long drapery under one arm until they came to the door of the presentation-room, how then to let it fall with grace, and majestically sweep the dust off the palace floors. Day and night the milliners labored incessantly, yet unable to meet the increasing demands which were made upon their nimble fingers. Of the milliners' girls, some grew pale, and others grew sick, and some died; the shears of fate snapping the thread of their life, while their scissors were yet in the unfinished gown.

An African would have thought, that an universal ostrich hunt had taken place in some neighboring desert, or that a tribute of white plumes had been exacted from some monarch of Lybia. It was decreed, that no lady should wear more than 25 ostrich feathers in her hair at

residence of a fugitive prince, there is much elegance, taste, and refinement in the town. In the London circles, he who has the highest title has the greatest consideration. In Edinburgh, the society of Scott, Jeffrey, and Wilson is more esteemed than that of mere dukes and marquises.

ance; and, that no one could appear with less than 12. It is said to have been a remark of his majesty, that since his accession to the throne, he had not seen so many unsoiled dresses, unrouged faces, and white white plumes, as were displayed in his Scottish drawing-room.

The eventful morning arrived; and we will venture to say, that a more sleepless night than that which preceded it was seldom passed by the inhabitants of a great city. The provost and the bailiffs rubbed their hands with an important air, looked at each other's solemn faces, and hoped that all would go off well. By 6 in the morning, there was a universal stir, although the drawing-room was not to take place till 11. It would be difficult to compute with any degree of certainty how many eyes were at the same moment fixed upon the mirror. The gentlemen had one advantage over the ladies. They had already kissed hands at the levee; on which occasion an amusing mistake was made by a deputation of Edinburgh lawyers, who being desired to kiss hands, instead of kneeling to salute the royal fingers, kissed their own familiarly and passed on. The hair-dressers might have had the hundred arms of Briareus, and yet found them insufficient for the various operations of curling and frizzing and tastefully arranging jewels and plumes. The court-dress of a lady consists of a gown of some rich material, perhaps white satin, embroidered in gold; the train, which is several yards in length, is composed of velvet, silk, or satin, either white or colored, and embroidered to suit the dress. The sleeves are short, with lace ruffles. Lappets of Brussels lace are fastened to the top of the head, and depend as low as the waist. The head-dress is a lofty plume of ostrich feathers, usually mingled with aigrettes of diamonds, and other rich ornaments, such as necklaces, earrings, bracelets, belts, and stomachers of diamonds are worn in the greatest profusion. The gentleman's court-dress is infinitely less graceful and becoming. A coat, cut in a peculiar antique fashion, usually composed of claret-colored cloth, and embroidered at the pockets, collar, and wristbands; point lace ruffles; an embroidered waistcoat; white silk stockings, and knee-breeches of white casimir; shoes with silver or diamond buckles; a long sword, and a *chapeau de bras*, form a costume which may be suited to an elderly and courtly-looking person, giving him the air of a Sir Charles Grandison, but which is very apt to bestow upon a young gentleman the appearance of having stepped into a suit of his grandfather's clothes. By 10 o'clock the streets were covered with carriages hastening towards Holyrood. Probably at no period had such a scene of varied magnificence been displayed in Edinburgh. Bodies of cavalry and infantry; the Lancers, with their gay scarlet uniforms; the Scotch Greys, with their heavy helmets and handsome horses; the Highland regiments in blue bonnet and philabeg; the Royal Archers in their suits of Lincoln green; the Earl-mareschal with his pages in black velvet and silver; these, together with the tasteful and splendid equipages, the innumerable foot passengers, the windows and balconies crowded with heads, all combined to form a prospect which almost fatigued the eye by its variety and magnificence.

Both the court-yard of the palace, and the streets in its vicinity were covered with an endless file of chariots and coaches; from the windows of which innumerable plumed heads were bending, and eyes anxiously watching the moment when their turn to enter was likely to arrive. It came at last; and through long files of guards, and pages, and ushers, bespeaking all the mingled bustle and etiquette of a royal mansion, the company passed on to the gallery allotted for their reception. And again old Holyrood echoed to the tread of light and joyous footsteps. And again bright eyes, and sparkling jewels lit up her desolate chambers. And her moss-grown court-yard rang to the tramp of the war-horse, and the neighing of the proud

steed was mingled with the loud notes of martial music. Forests of white plumes were waving through the ancient galleries. To a fanciful mind, it seemed like the invasion of a sanctuary, and like treading upon the ashes of the dead. All eyes were anxiously turned towards the windows which commanded a view of the Dalkeith road, by which the royal carriage was expected to arrive. Now was the moment of expectation. Some grew pale; and some grew red; some talked of their fears; and some bravely tried to laugh them off. Various officers of the household, ushers, and pages, passed and re-passed through the apartments, re-assuring the ladies, and observing, in a consequential whisper, that his majesty would speedily arrive. The approach of a carriage and six, occasioned a general rush to the windows, and as general an expression of disappointment. It was the equipage of the first Lord of the Bedchamber, the Earl of F.; and was, perhaps, one of the most remarkable specimens of an outre taste, exhibited during his majesty's visit. The carriage itself was green, covered with gilding, the F—e arms emblazoned on the panels. It was drawn by 6 grey horses, with their postillions dressed in tartan. A fat English coachman looked uneasy upon his box, in the novel acquisition of a kilt. Beside him, sat a foreign chasseur, with a plumed cap. Two footmen, in kilts, stood behind the carriage. Four out-riders, in tartan trews, galloped beside it. Four runners, in tartan kilts, exerted all the speed of their long Highland legs, to keep up with the prancing greys. The Earl himself, in full Highland costume, with kilt, dirk, and bonnet, completed the incongruous appearance of the whole. At last, the royal carriages were seen approaching at full speed; the King in a crimson colored coach, drawn by six white horses, the Dukes of M—e and A—e on either side of him, and the Lords of the Bedchamber in separate carriages, with the royal liveries. In a few minutes, the doors of the gallery were thrown open, and Sir Hussey Vivian, a tall and fine-looking person, in a complete dress of black sable, and holding a white staff in his hand, announced, that his majesty requested the honor of the ladies' company in the presence-chamber.

Now came the rustling of trains, and the movement of plumes; and for once, even ladies of rank were disposed to yield precedence to each other. The company passed along through two files of guards, stationed in the ante-chamber. The utmost silence prevailed, broken only by a few anxious whispers, either of inquiry or information. Among the first who entered the presence-chamber, was the young and lovely Countess of G—y, attired in all her bridal splendor, yet pale and shrinking, like a white rose half concealed in its silver leaves.

At the door of the royal apartment, the lady relinquishes the arm of the gentleman who escorts her, gives her card to an usher of the white rod, stationed for the purpose of receiving it, pulls off her left glove, and lets down her train. Her name is then called out by the usher, together with that of the Lady, under whose auspices she is presented. "Miss or Mrs —, by the Countess of —" She then proceeds up the room, and it must be confessed, that she requires some courage to advance alone, through a large apartment, with the eyes of the King and his suite fixed upon her. His majesty stands in full dress, surrounded by the officers of his household, and by several ladies of rank, who have the privilege of the *entrée*. Having advanced up to the King, the lady gives another card to the Lord in waiting, who stands behind him. Her name is again read out, upon which his majesty comes forward, takes her hand, salutes her on the left cheek, says a few words to her, either of compliment or inquiry, and makes a low bow; a sign that the conference is ended. The lady curtsies very low, and retires backward towards the door. As this operation is somewhat difficult to perform with a long train, the ushers of the white rod are in attendance to beat it back, and rescue the wearer from the inevitable

The Scotch are obliged to be frugal, yet they are not without charity. It is said, that in England, there is more public spirit, and in Scotland more individual charity. There are no legal provisions for the poor, and except in the large towns, no hospitals or almshouses, yet charity affords a sufficient relief. The beggars are neither importunate nor clamorous; for a Scotchman solicits charity with the dignity of a Castilian. Orphans are often distributed and brought up in families. There are some points of resemblance in the character of the Scotch and that of the people of New England. If the Scotch are not cheerful, they are even-tempered, and at times they are given to merriment. At Edinburgh, on the last night of the year, it is the custom to sup abroad: at 12 o'clock, on the striking of the bells, the people sally forth in such numbers, that all seem to be abroad. It is a night of revelry. The watchmen retire from their rounds, and any lady, who is abroad by accident, or design, is liable to be saluted, and the severity of the custom is seldom relaxed in favor of any rank.

The domestic comforts of the Scotch are increasing by communication with the English, though many of the Highlanders are still in a condition hardly superior to barbarism. The useful arts are comparatively little known, and a traveler may see a horse drawing home the harvest in a crate, with a stick under his tail for a crupper, held at each side by a twist of straw. It is, perhaps, peculiar to a part of Scotland, "to have attained the liberal, without the manual arts." Families of refinement and education, and not without means, have lately lived in the Highlands with fewer conveniences than an English cottager, and with no floor in their houses, but the damp earth. In these houses, however, the stranger would be received with true hospitality, and the proprietors are, in the strictest signification of the word, gentlemen. All the relatives of a chief are his equals, or, according to the Spanish proverb, "as good gentlemen as the king, only not so rich." Boswell relates, that when he was at Inverara, the Duke of Argyll asked one of his remote cousins, of the name of Campbell, and of course gentle, to bring something from the next room, which he did readily, though he whistled, as if to show the visitors that he was no menial, but was willing to oblige Macallumore. The country gentlemen are often called by the name of their estates. It is not needful to commend the Scotch character to the people of the United States, where they are excellent citizens, and the most desirable class of emigrants. Many of them have settled in Canada, and they appear to be fond of associating in such a manner as to form communities of their own.

The natives of the Hebrides are a hardy race, remarkable for their strong attachment to their native islands, and for retaining in their character much of that ancient Highland pride, and feudal fidelity, the traces of which are growing fainter, and less marked, every successive generation. Nothing can be more singular to the eye of a stranger, than the first view of a village in the Hebrides. At a distance, a large volume of black smoke is seen slowly ascending, apparently

tumble, which would be the consequence of her becoming entangled in it. Finally, they gather it up, and put it into her hand at the door.

The gentlemen merely pass with a bow, unless the King, being acquainted with them, detains them a few moments in conversation. On the present occasion, his majesty wore a field marshal's uniform, a dark blue coat and diamond star, with a broad green ribbon. The Earl of —, who stood behind him, reminded him as the ladies entered, that such a one had formerly been a celebrated beauty, and had appeared at the late Queen's drawing-rooms; that such another was the widow of a celebrated general or admiral. The king's memory, and the king's politeness, were, therefore, equal themes of admiration. Upon the whole, the ladies looked fresher, and more able to bear the light of the sun, than in a similar assemblage at St. James's. Rouge, which looked like brick dust by the morning light, was chiefly confined to old and shriveled dowagers, and the king had little occasion to use the white pocket handkerchief, with which he sometimes finds it necessary to rub off the rouge that adheres to his lips. True, there were some awkward blunders; but his majesty usually turned his broad shoulders on the offender, and affected to perceive nothing that was disagreeable. A lady became entangled in her train. The white rods had forgot their duty. She whirled round and round like a horse entangled in his bridle, and finally became literally inclosed in a sack, from which there was no escape. Just as she was about to fall forward, she was arrested by some friendly hand. One very beautiful young lady mistook a

lord in waiting for the king. It was said that his lordship usurped the royal privilege, and then informed her of her mistake. A very fat personage, whether from excess of awe, or from having stumbled over some unknown obstacle, no sooner came up to the king, than she fell upon her knees before him. It was too much, even for courtly etiquette. The suite bit their rods, and tittered. The king applied his handkerchief to his face. The unfortunate little woman remained in the same position, her face gradually assuming a darker hue of purple, until some humane person, blessed with a strong pair of arms, placed her upon her feet; whereupon she made a hasty retreat. "Mrs. B —," said his majesty, casting a sad glance on an old beauty with a frizzled wig, false teeth, and corked eyebrows, "I cannot help remarking, that we are neither of us so young as we have been."

A few privileged persons remained in the presentation room during the ceremony, but the generality returned to the other apartments, and much amusement was excited among the guard of archers in the ante-rooms, at the apprehensive faces of those who went in, and the relieved air of those who came out. One of the most striking looking persons was the Duchess of A., in a complete dress of gold brocade, with a head-dress of black plumes and diamonds. After standing for upwards of three hours, his majesty having received and dismissed his company, made a general bow to the assembly, and hastily took his departure by an opposite door. One by one the carriages drove off, and Holyrood was, once more, left to silence and desolation.

out of the ground. The traveler approaches a little nearer, and perceives, that it proceeds from a collection of low mounds, or hillocks of mud, and it is only upon a closer survey, that he discovers them to be human habitations. These black huts, as they are appropriately named, consist of 4 low mud walls, with a roof of ill-thatched heather; the smoke coming out of the door, which serves as a chimney, or not unfrequently the people going in at the chimney, which serves as a door. Within this miserable dwelling, the whole establishment, consisting of men, women, and children, 7 or 8 lank-looking Highland ponies, called shelties, and half a dozen starving cattle, are usually assembled promiscuously round a peat fire, in the middle of the room; a few rude wooden benches, and one or two chaff beds, in niches, with coarse blankets, manufactured by the people, form the articles of furniture. The whole is enveloped in a cloudy atmosphere of smoke, with an overpowering smell of peat, tobacco, and whisky.

The better tenantry are contented with the luxury of a separate chimney and door; and the addition of an outhouse for the cattle and ponies. Individuals, worth 4 or 5,000 dollars, are often perfectly satisfied with a similar habitation. When they are obliged by order of the proprietor to leave their huts, they carry most of the rude materials along with them, for the construction of others upon the same plan. Till within late years, they had no gardens attached to these dwellings. A few cabbages and onions are now cultivated in a spot of ground near each hut; but this being considered an innovation, was introduced with difficulty; and a stand was made against it by all enemies to reform. Carts are unknown; a crooked spade with a long handle, serves instead of a plough. A laboring man will work for a whole day with no other food than a few handfuls of oatmeal moistened with cold water. Their principal food consists of cakes made of barley or oatmeal, dry and burnt, with a strong smell of peat smoke; salt herrings, when they can be procured, and miserable potatoes. They also eat a species of sea-weed, called *dulse-and-tangle*, either raw or boiled, and prepared like spinach. In years of scarcity, whole families have subsisted upon sea-weed and small shell-fish, such as cockles, buckies, and periwinkles.

The chief source of profit to the West Highland proprietors, is in the manufacture of kelp, which is used in making soap, glass, &c. The kelp is made from sea-weed, which grows on the rocks, and produces a regular crop, cut down every second year with sickles, in the same manner as corn. It is collected when the rocks are uncovered at low tide, and carried out in boat-loads to the nearest island. It is then left to dry in the sun, and afterwards burnt. On a dark night, the numerous kelp-fires produce a singular effect. On these occasions, all the villages are deserted, and the inhabitants bivouac in the open air till the kelp harvest is ended. Vessels are sent from Liverpool to take in the cargoes. A great part of these islands is covered with large tracts of sand which, it is feared, will eventually overspread a great portion of the arable land. Various attempts have been made to stop the progress of this flying sand, which frequently blows from one island to another. The only experiment which has in some measure succeeded, has been in the planting of bent, a species of long grass, with a remarkably strong root, which not only fixes the sand, but renders it capable of producing rich clover and excellent pasture for cattle.

Gaelic is still the universal language of the Highlands, though English is spoken by those who are in the habit of visiting the Lowlands. The religion is Roman Catholic and Presbyterian. In North and South Uist, and Lewis, the former is most prevalent. Presbyterianism is more common in the other islands. The women, with a few exceptions, are almost universally ugly, owing to hard work and constant exposure to bad weather. The men are better looking, lazy, and not strong. They are an unprovident race; careless of the future, and extravagantly fond of dancing to the bagpipes and singing. Tobacco and whisky are their great luxuries. The poverty of their food and wretched manner of living, render rheumatic complaints and premature decay very common; yet there are various instances of extraordinary longevity among the inhabitants. They are all good seamen, fearless, and daring; and where they have been induced to emigrate, they have been usually remarked for quickness of perception, and a good natural capacity. But no land, however favored by nature, or adorned by art, appears to the Highlander equal in beauty to his own barren rocks and heathery moors; and in these Western Islands, scarcely an instance is known of any individual, however distant his wanderings, who has not returned to lay his bones in the shadow of his own native hills.

It is a common sport, or rather a frequent employment, at St. Kilda, and other islands, to gather among the crags the eggs of the sea-fowl, and catch the birds themselves; compared

*Bird Catching.*

with this, the part of him who "gathers samphire" on the Dover cliffs is one of safety and pleasure. In the cavities of the beetling crags the sea-fowl resort, and the natives, by means of a rope about their body, overhang precipices nearly one fourth of a mile in height, merely to look over which would disorder any common nerves. Yet the adventurer, with a line of many fathoms, held by several companions above, descends, and disengaging himself from the rope, enters cavities in the rock, higher than the arch of any gothic church. This is not without danger; and many perish from falling stones, and other casualties. It is recorded, that one of these adventurers discovered that the rope by which he was suspended was so much chafed by an edge of the rock, that he

hung by a single strand; he could not give immediate signals to his comrades, and when he was drawn up, it was found that the extremity of his terror had been such as to blanch his hair. From the tops of these dizzy precipices, the mountainous waves breaking below seem like ripples, and the roar can hardly be heard.

16. *Amusements.* These are chiefly such as are common in England, except bull-baiting, cock-fighting, and pugilistic combats. Quoits are common, and there is a favorite game of ball, called golf, which is often played with great animation on the beach. The field sports are not neglected, and the streams abound with excellent fish, while the heath and mountains have much game. Dancing is a general amusement, but except in the cities it displays more agility than grace.

17. *Education.* The Universities of Scotland are somewhat different from those of England. Instruction is communicated by professors, who deliver public lectures, and not by the private lessons of tutors, as in England. There are also many minor points of difference. There are 4 Universities in Scotland. That of *St. Andrews* was founded in 1458, and is composed of 3 colleges with 11 professors. That of *Glasgow* was founded in 1453, and has 18 professors. That of *Aberdeen* has 2 colleges, each of which is styled a University; both have 18 professors. That of *Edinburgh* was founded in 1581, and has 27 professors; its medical classes are attended by students from all quarters of the world, and the whole number usually exceeds 2,000. The *High School*, and *Academy* of Edinburgh contain together above 1,000 scholars. Common schools are established by law in every parish, and in many of the larger towns are charity schools and academies.

In some districts there is more intelligence among the laboring class, than in that of any other country. In the Highlands it is very different. In 1822, there were 70 in 100 of the inhabitants of the Hebrides who could not read, and in Argyleshire and the interior of Caithness, there were but 30 in the 100, and in Orkney and Zetland 13 in the 100, that could read. In these districts, above one third of the inhabitants are not within 2 miles of a school, and many thousands not within five.

The laws provide for one school in every parish, besides which there are numbers of private schools. The peasantry of the Lowlands have made admirable use of all the advantages within their reach. They are to a great degree intelligent; and have more taste and refinement than can elsewhere be found in the same class. In Iceland, the common people may be equally or more learned, but they have infinitely less taste. The popular ballads and songs, and the sweet music, necessarily circulate much taste, feeling, and poetry. The Scotch have the advantage of excellent books, adapted to their own dialect, which is read wherever the English language is known. From one of their cottages has arisen a peasant, one of the most extraordinary men of his age, who wrote upon things familiar to his countrymen and class, and whose works are indelibly fixed in their hearts. His fame has gone over the earth, and who is there in Scotland, that can read, who is not as familiar with the thoughts of Burns, as his own; those who cannot read also are familiar with his strains, which are more tender than

any inspired by the muse of Tibullus. The novels of Scott are in every cottage, and cannot but elevate the character of the peasantry. James Hogg was a shepherd, and Wilson, our ornithologist, was of an humble grade of life. There is among parents a great desire to give their children a good education; and often, by great parsimony, one is sent to the university. Edinburgh is called, and not without reason, the Northern Athens.

18. *Arts, Sciences, &c.* The useful arts have not until lately been much encouraged; the division of labor has not been understood. Most things used in a family have generally been manufactured in it. In painting, the Scotch have produced few masters. Wilkie, however, is unrivalled in his scenes of familiar life. Music is a national passion. The bagpipe will excite a Scotchman, as the fandango animates a Spaniard. It is, however, an imperfect instrument, and to be well played must be in the hands of a master. The old national airs which Burns has "wedded to immortal verse," are known beyond the limits of Scotland. Their origin is lost, though some of them are supposed to have been composed by Rizzio, and other Italian masters of that age. Some of them are unrivalled in pathos, and others in liveliness. Much of the music is of a melancholy cast, and even the convivial songs have a touch of this, though eminently adapted for convivial purposes.*

19. *Religion.* This is Presbyterian, and the church government was secured by the treaty of union. This government is founded on an equality of authority, among the presbyters, or pastors. There are 903 parishes; though there are more pastors than parishes. In matters of discipline, a pastor is aided by ruling elders. The latter watch over morals, catechize and visit the sick, and manage the funds of the poor, which are chiefly collected at the church door. The ministers and elders compose a kirk, or church session, the lowest ecclesiastical court. It inflicts ecclesiastical censures on parishioners convicted of immoral conduct, &c., though there is an appeal to the presbytery, which is the next higher court. This is composed of pastors of several contiguous parishes, with a ruling elder from each parish. Synods are composed of several presbyteries, and a ruling elder from each kirk session. The General Assembly† is the highest council, and is composed of 200 ministers and 89 elders, representing presbyteries, 69 representing royal boroughs, and 5 ministers or elders

* The following remarks on Scottish music by Dr. Beattie, are beautifully descriptive of Scotland, and happily illustrate the subject to which they refer. "There is a certain style of melody peculiar to each musical country, which the people of that country are apt to prefer to every other style. That they should prefer their own is not surprising; and that the melody of one people should differ from that of another is not more surprising, perhaps, than that the language of one people should differ from that of another. But there is something not unworthy of notice in the particular expression and style that characterize the music of one nation or province, and distinguish it from every other sort of music. Of this diversity, Scotland supplies a striking example. The native melody of the Highlands, and Western Isles is as different from that of the southern part of the kingdom, as the Frith or Erse language is different from the English or Scotch."

"The Highlands of Scotland are a picturesque, but in general, a melancholy country. Long tracts of mountainous desert, covered with dark heath, and often obscured by misty weather; narrow valleys thinly inhabited, and bounded by precipices, resounding with the fall of torrents; a soil so rugged, and a climate so dreary, as in many parts to admit neither the amusements of pasturage, nor the labors of agriculture; the mournful dashing of waves along the friths and lakes that intersect the country; the portentous noises, which every change of the wind, and every increase and diminution of the waters is apt to raise in a lonely region, full of rocks, and caverns; the grotesque and ghastly appearance of such a landscape by the light of the moon; objects like these diffuse a gloom over the fancy, which may be compatible enough with occasional and social merriment, but cannot fail to tincture the thoughts of a native in the hour of silence and solitude."

"What would it be reasonable to expect from the fanciful tribe, from the musicians, and poets of such a region? Strains expressive of joy, tranquillity, or the softer passions: No, their styles must have been better suited to

their circumstances. And so we find in fact that their music is. The wildest irregularity appears in its composition; the expression is warlike and melancholy, and approaches even to the terrible. Some of the southern provinces of Scotland present a very different prospect. Smooth and lovely hills covered with verdure; clear streams winding through long and beautiful valleys; trees produced without culture, here straggling single, and there crowding into little groves and bowers, with other circumstances peculiar to the districts I allude to, render them fit for pasturage, and favorable to romantic leisure and tender passions. Several of the old Scotch songs take their names from the rivulets, villages, and hills adjoining the Tweed near Melrose, such as Cowden Knowe, Galawater, Ettrick Banks, Braes of Yarrow, Bush above Traquair, &c. All these songs are sweetly and powerfully expressive of love and tenderness, and other emotions suited to the tranquillity of pastoral life. It is a common opinion, that these songs were composed by David Rizzio, a musician from Italy, the unfortunate favorite of a very unfortunate queen. But this must be a mistake; the style of the Scotch music was fixed before his time: for many of the best of these tunes are ascribed by tradition to a more remote period."

† In the discussions of the Assembly at Edinburgh, there is perhaps more personality, and less decorum than in the House of Commons, or almost any other body of the same dignity. The speeches are often vehement and not unfrequently angry. Many of the members are men of great talent, and the eloquence of Chalmers is sometimes displayed here to the best advantage. The Assembly is opened by the king's commissioner, who is usually a nobleman of high rank. He has an elevated seat, where he appears every day during the session. But he is railed out, and takes no part in the proceedings of the Assembly. When the business of the session is done, he proceeds to close it in the name of his Majesty, the Head of the Church, &c. The moderator then rises and says, "In the name of Jesus Christ, the only true head of the Church, I declare this Assembly now closed."

from universities. The Assembly sits annually at Edinburgh, in May, 10 days. The pastors are all entitled to a house and glebe land, equal to £40 a year, and to receive from parish tithes or the exchequer, £150 a year; some have much more, or nearly £1,000, though the average income is £300. In populous parishes there are chapels of ease, where the ministers are elected by the heads of families, and paid chiefly by the rent of seats. There are 38 missionaries in remote parts of the Highlands, supported by the crown, and the Society for propagating Christianity has a few. There is, besides, a large and respectable body of Dissenters, Presbyterians, and others, more numerous than the established church.

The Scotch are a very pious, as well as moral people; there are few children of 10 years who have not by heart the Assembly's Catechism; and there is generally family worship twice a day. On Sundays, the roads are thronged with people in their best dresses, going to church; and at church, they are remarkable for their close attention to the services. When George the Fourth visited Edinburgh, he went to church on Sunday. He is said to have remarked with astonishment as he went through the streets, that the people did not follow him, but that each individual went straight to his accustomed place of worship. The monarch is said to have expressed great respect for conduct which seemed to display such steadfastness of principle, while at the same time their loyalty was unquestionable.

20. *Funerals.* These generally are conducted somewhat as in New England; though in the highlands the dead are sometimes buried after the Gaelic manner, with feasting and festivity, with the *coronach* or funeral dirge, and with the shrieking of women, as in some eastern countries. The funeral festivity, which is carried to great excess, is called the *Lyke-wake*. In Edinburgh, and in most of the towns, there are great processions at funerals, and all the relatives of the deceased, including the most remote, are expected to attend. It is said, that every man keeps a black coat ready for such occasions.

21. *Marriages.* These are usually performed by the clergy as in our country, but a justice of the peace is allowed to perform the ceremony; even a declaration of the parties before a competent witness is sufficient to answer the law. The blacksmith at Gretna Green was resorted to by the English fugitives, as such a witness, only because he happened to be upon the border, at a point easily accessible.

22. *Superstitions.* The Scotch had formerly, and even recently, many superstitions, that were so deeply rooted as to have an influence in common affairs. These are fast disappearing, though many of them are of a highly poetical character. The Highlanders, in a particular manner, were liable to this influence, both from their ignorance, and the solitudes in which they lived. They dwell among the wild and grand scenes of nature, among lakes, mountains, and waterfalls. Many of the natural phenomena of these were referred to supernatural causes, and the glens and mountains were peopled, in the Highlander's fancy, with imaginary beings, who were not always supposed to be benevolent.

The principal of these were the fairies, who were supposed to exchange children with the people, and to take away some, of great purity of mind, to fairy land. They were called, when spoken of, "the good people," from a wish to conciliate them. There was, and there is now much belief among the rustics in omens and other indications of futurity, and many a lass goes forth at Halloween with certain ceremonies, to look for the image of her future husband. There were several kinds of divination, the most solemn of which was this. A man slept at night near a waterfall, wrapped in the fresh hide of a bull, and in the morning his answers were taken for responses. The "second sight" was the faculty bestowed on a few of seeing the representation of a future event; as a death, a funeral, a massacre, or a mere casual visitor passing before their eyes. It would come upon the seer unawares, as

"Coming events cast their shadows before."

23. *Government.* Scotland, notwithstanding the accession of James the Sixth to the throne of England, was nevertheless a separate kingdom for above a century afterwards. In 1707, a union was effected between the two kingdoms, under the name of Great Britain. The United Kingdom is represented by one parliament; and it is settled by the articles of union, that when Britain raises by a land tax £2,000,000, Scotland shall raise £48,000. The laws relating to trade, customs, and the excise, are the same in both countries; but all the other laws of Scotland remain in force, though alterable by the parliament of Great Britain, yet with this caution: that laws relating to public policy are alterable at the discretion of the parliament: but laws

relating to private right are not to be changed, but for the evident utility of the people of Scotland. As the municipal laws of Scotland are generally preserved, those of England are not in force. Acts of parliament extend to Scotland, except when it is declared by express proviso to be otherwise.

Scotland was formerly but very imperfectly represented in the imperial parliament, and even at present, the number of her representatives is small, although that of the voters has been materially enlarged by the reform act of 1832. It now has 53 members in the House of Commons, who are returned by the inhabitants paying a yearly rent of 10 pounds, or possessing property yielding that sum. Scotland has also 16 peers in the House of Lords, who are elected from time to time by the whole body of the Scottish peerage. A few of the ancient offices peculiar to the country, have been retained since the union, among which may be mentioned the *Lyon king at arms*, or Grand Herald of Scotland, formerly an office of great splendor. The old custom of *wappen shaving*, in which the sheriff of the county mustered the militia, is also retained, and the officers receive their commissions from the sheriff.

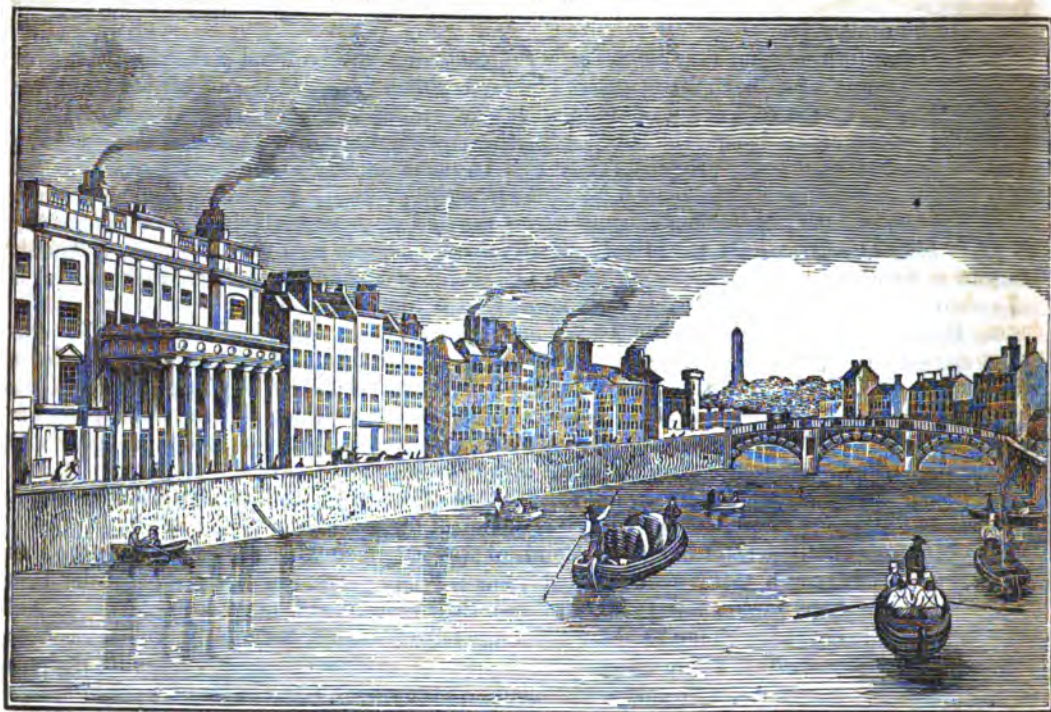
24. *Banks.* The *Bank of Scotland* has a capital of a million and a half sterling. No individual can possess more than £ 40,000 of the stock. The *Royal Bank* has also stock of a million and a half. The *British Linen Company*, and the *Commercial Banking Company*, are similar institutions. The capital of the latter is three millions. They all issue notes; but not under one pound. There are several private banking institutions, but they do not generally issue notes. Their transactions are confined to discounting.

25. *Laws.* These have a similar origin with those of England, and much resemble them. The jury is composed of 15, and a majority is sufficient for a verdict.

26. *Antiquities.* The reformation in Scotland was attended with so much violence, that among the antiquities are many ecclesiastical ruins; Knox taught his disciples, that the best way to exterminate the rooks, was to "pull down their nests," and many a noble abbey and cathedral were destroyed. Some of these buildings remain entire, and of the ruins, *Melrose Abbey* is the most visited. There are ancient castles of various forms, and different degrees of preservation. Some are entire and occupied. There are a few circles of upright stones as in England, though of less size, and there are circular Danish forts, and some round, narrow towers, upwards of 100 feet in height. The vitrified forts are curious; one of them in Rosshire is 120 feet in length, and 40 in breadth. It is glazed on the inside, but whether by art or casual fires is not known. The Roman remains are indistinct. The fortified line, between the Forth and Clyde, may be barely traced in many places. It is called *Agricola's Wall* and *Graham's Dyke*. Roman highways may be traced as far north as Angusshire, and there are several camps, though nearly obliterated.

27. *History.* Little is known of the state of Scotland before the 11th century. At this time, the country had its king, and was engaged in wars with England. The aggressions of the English kings were at first repelled, but Edward the First succeeded in bringing the country into a state of dependence, and placing a creature of his own upon the throne of Scotland. The celebrated William Wallace roused his countrymen to resistance, and waged a deadly war against the English, but was betrayed, taken, and beheaded in London. Robert Bruce consummated the revolt begun by Wallace, and the victory of Bannockburn, in 1314, reestablished the independence of Scotland. Notwithstanding this success, the kingdom was long afterwards the theatre of perpetual turbulence, and the Stuarts, who shortly afterwards came to the throne, were the most unfortunate monarchs that ever reigned. James the Sixth of Scotland received the crown of England by legacy, from Queen Elizabeth, who had put his mother, the celebrated Mary Queen of Scots, to death upon the scaffold. Scotland and England, though distinct kingdoms, were from this period governed by a single monarch. In 1707, the two kingdoms were, by legislative acts, united, under the name of the *Kingdom of Great Britain*.

CHAPTER V. IRELAND.

*Dublin; view on the Liffey.*

PHYSICAL GEOGRAPHY.

1. *Boundaries and Extent.* Ireland is an island separated on the east from England by St. George's Channel, and the Irish Sea, and on the northeast from Scotland by the narrow strait of Port Patrick. It extends from $51^{\circ} 20'$ to $55^{\circ} 20'$ N. latitude; and from $5^{\circ} 20'$ to $10^{\circ} 30'$ W. longitude. Its greatest length from northeast to southwest is about 300 miles, and its greatest breadth 160. There is not a spot upon it 50 miles from the sea. It contains about 30,400 square miles.

2. *Mountains.* The highest ridges of this island are usually in short lines, or detached groups. They are not sufficiently numerous or connected to give it the character of a mountainous country. They are not bold or precipitous, but their sides are gentle acclivities, admitting of culture a considerable way toward the summits. The highest mountain is *Gurran Tual*, in the county of Kerry, in the southwestern part of the island, 3,400 feet above the sea. The shores, particularly in the west, are the most mountainous parts.

3. *Rivers.* The largest is the *Shannon*, which flows southwest into the Atlantic. It is about 170 miles in length, runs through several lakes or *Loughs*, and widens at its mouth below Limerick to a spacious bay; it is deep and navigable. The *Barrow* flows south about 100 miles to the sea, at Waterford. The *Foyle* and *Bann* are small streams which fall into the sea at the northern extremity; the latter discharges the waters of Lough Neagh. The *Boyne* is of historic interest.

4. *Lakes.* The Irish name for lake is *Lough*. There are large numbers of them in the island. *Lough Neagh* in the northeast is the largest; it is 30 miles long, and 15 broad. Its waters deposit a calcareous sediment; the shores are tame and uninteresting. *Lough Earn*, a little to the west of this, consists of two lakes joined by a canal; the first is 20 miles long, and the second 15; they are comparatively narrow. They contain many islands, and their shores are pleasant, but not bold; *Lough Corrib*, on the western coast, is a narrow sheet of water, 20 miles in length. The most noted are the three lakes of *Killarney*, at the southwestern extremity of the island. They are small, but very beautiful, and will bear a com-

*Lake of Killarney.*

parison with the finest lakes of Scotland and England. Their banks are high, and covered with wood; numbers of verdant islands are scattered over their surface, and the mountains resound with the roar of waterfalls.

5. *Bays.* The western coast is the most deeply indented. The largest bays are *Galway* and *Dona-gal*. On the eastern coast, are the bays of *Dublin* and *Dundalk*.

6. *Climate.* The climate is damper than that of England, but otherwise similar. Westerly winds are frequent and violent. Snow is rare in winter,

and passes rapidly away. The fields have a green appearance throughout the year.

7. *Soil.* A great part of this island is covered with immense *bogs*, or sterile tracts, producing nothing but heath-bog myrtle and sedge grass. They form a broad belt across the centre of the island, widening toward the west. The remainder of the soil is stony, but the moisture of the climate preserves the herbage, and renders the land excellent for pasturing.

8. *Geology.* A considerable part of the surface of Ireland, amounting to 3,000,000 acres, is covered by peat bogs to the depth of from 5 to 30 feet, which conceal many of its mineral treasures. The island is almost completely surrounded by groups and ranges of primary and transition mountains, the inland and central counties being comparatively low, and composed of secondary formations. On the northeast side there is also a small extent of upper secondary strata, and nearly the whole of *Antrim* is covered by basaltic rocks. The older rocks are chiefly mica slates, hornblende slates, and clay slates, with limestone and *grauwacke*, but granite porphyry and gneiss occur. Copper, lead, and gold are found in these districts. The great central secondary district, comprises more than a third part of the island, and is often called the Great Limestone Valley of Ireland, because limestone is the prevailing substratum. Coal beds abound in this region.

9. *Minerals.* Coal is the most abundant mineral. It is found in *Kilkenny*, in the south. Marble and slate occur in the same quarter. Iron was formerly produced in many parts, but at present few or no mines are worked. Copper, silver, and gold have also been found in small quantities.

10. *Face of the Country.* The surface of Ireland is almost entirely level. The general appearance of the country is varied and pleasant, although bare of trees. In some parts, are rich and fertile plains, and in others, gentle slopes and waving hills.

Ireland was once covered with forests which are now replaced by immense bogs. These form a remarkable feature, characteristic of the country. They afford abundant supplies of peat, used by the inhabitants for fuel. From their depths are also taken quantities of wood in complete preservation, which indicate, that these bogs are the remains of the ancient forests. The skins of animals and men that have been swallowed up in them, have been found converted into a sort of leather by the tanning matter, which the moisture contains.

*Giant's Causeway.**Singular Caverns.*

11. *Natural Curiosities.* The greatest curiosity in Ireland is the *Giant's Causeway*, an

immense mass of basaltic columns upon the northeastern coast. This stupendous work of nature first strikes the spectator with the impression, that an enormous pier or mole was begun upon the beach, the foundations laid and the stones hewn out for building ; but, that the work was suddenly abandoned. This appearance has given rise to its name ; and there is a tradition among the natives, that the giants once began to build a causeway across the sea of Scotland, but were stopped in their undertaking by the ancient Irish heroes. The causeway consists of three piers projecting from the base of a cliff. The pillars are of a dark color, and so closely united, that it is difficult to thrust the blade of a knife between them. Each pillar is a distinct piece of workmanship ; some of them have 9 sides, but the most have 6. In some places, the causeway rises into cliffs 250 feet above the sea.

In the neighborhood, are two singular caverns, which admit the entrance of boats. The roofs form almost a regular pointed arch and produce an effect similar to that of a gothic aisle. Some of these caverns are formed of rounded stones and others of walls of basalt.

POLITICAL GEOGRAPHY

1. *Divisions.* Ireland is divided into 4 Provinces, Ulster, Leinster, Munster, and Connaught. These are subdivided into 32 counties.*

2. *Canals.* The *Dublin and Shannon Canal* extends from the Liffey at Dublin, across the island to Moy, on the Shannon, 65 miles, 24 of which are across a marsh. The *Royal Canal* extends nearly parallel to this, and is about 10 miles distant from it. The *Newry Canal* passes along the southern part of the county of Down, and is used for the transportation of coal. The *Ulster Canal* is intended to unite Loughs Earn and Leagh, and has but recently been projected. A ship canal has also been planned between Dublin and Galway.

3. *Cities and Towns.* *Dublin*, the capital of Ireland, is delightfully situated at the bottom of a bay on the eastern coast, about a mile from the shore. It is divided by the little river Liffey into two equal parts. The city is nearly square, being about 2½ miles in extent. The houses



Dublin.

are generally of brick, and the streets irregular ; but those that run parallel with the river, are, for the most part, uniform and spacious. In the more modern part, they are from 60 to 90 feet wide. There are several fine squares, one of which, called Stephen's Green, occupies 27 acres, and has a magnificent appearance. Sackville Street is one of the finest in Europe. No city, in proportion to its size, has a greater number of elegant buildings. A vast number of country seats and villages are scattered over the country in the neighborhood, and are displayed in a charming manner by the slope of the ground down to the bay. The high lands of Wicklow bound the prospect in the interior, and render the view in every quarter delightful. Yet the stranger will not fail to

observe, in Dublin, the most painful marks of indigence and distress. Men, women, and children, of all ages, are seen in the streets, partially covered with rags, so loosely attached to each other, as to seem on the point of dropping off. Whole streets are filled with wasted mothers, bearing in their arms their pallid offspring ; attenuated and gray-haired men, tottering from age and want ; and others, bearing in their countenances the evidences of hopeless poverty. The suburbs of Dublin are occupied by the hovels of the poor, which are far inferior in cost and comfort, to the cow-houses of the United States. Yet there is a quietness and resignation about these Irish poor, which, to an American, is astonishing. They seem to submit to their condition, as if it were their just lot, and cheer their misery with wit and merriment, whenever an opportunity offers.

* COUNTIES OF IRELAND. *Province of Ulster.* — Antrim, Armagh, Cavan, Donegal, Down, Fermanagh, Londonderry, Monaghan, Tyrone.

Province of Connaught. — Galway, Leitrim, Mayo, Roscommon, Sligo.

Province of Leinster. — Carlow, Dublin, Kildare, Kilkeny, King's County, Longford, Louth, Meath, Queen's County, Westmeath, Wexford, Wicklow.

Province of Munster. — Clare, Cork, Kerry, Limerick, Tipperary, Waterford

Dublin has a considerable trade by sea, and the canals, which extend from this point to different parts of the island. The banks of the river are lined with elegant quays, and shipping of 200 tons may come up to the lower part of the city. Here are large manufactures of linen, cotton, woolen, and silk. The

monument to Nelson, 130 feet high, and the obelisk, erected in honor of the Duke of Wellington, 210 feet in height; the old parliament house, now the national bank; the castle or residence of the viceroy; the vast pile of Trinity college; the docks, capable of containing several hundred vessels; the enormous piers, which defend the harbor from the encroachments of the sea; the custom-house, &c., are among the most remarkable structures. The hospitals, and other charitable institutions, are numerous and well endowed, and there are many learned societies. Dublin contains 24 churches and chapels of the establishment, 26 Roman Catholic chapels, and 15 dissenting meeting-houses. In contrast with all this splendor, the miserable hovels of the poor present the most painful scenes of filth, poverty, and distress, and the beggars are very numerous. Population, 232,000.

Cork, the second city of Ireland, lies upon the Lee, about 14 miles from the sea; its harbor, called the Cove, is safe and capacious, and is strongly fortified. The city is irregularly built, the houses are old and mean, the streets narrow and dirty. Its commerce is extensive, and it exports great



Nelson's Pillar, Sackville Street, Dublin.

quantities of salted provisions. Population, 80,000. Cork harbor is the principal naval station for Ireland.

Limerick, a city on the Shannon, about 60 miles from its mouth, has a good harbor, and is connected, by canals, with Dublin. The surrounding country is remarkable for its fertility. Limerick carries on an extensive commerce. Population, 48,000. To the southeast of Limerick is *Cashel*, the see of the archbishop of Munster, containing a fine cathedral.

Belfast, in the northeast of Ireland, on a bay of the same name, with a safe and commodious harbor, is a flourishing place. Its manufactures of linen and cotton, and its situation, in a remarkably populous and highly cultivated district, give it an active trade. The shipping of the port amounts to 25,000 tons. Population, 75,000. To the southwest of Belfast stands *Armagh*, once a populous city, the seat of learning, and the metropolis of Ireland, now much reduced. It is at present, however, the see of the archbishop of Ulster, who is primate of all Ireland, and contains a fine cathedral and the archiepiscopal palace.

Waterford, stands on the Suir, just above its junction with the Barrow. Its harbor is ex-

cellent, and it has one of the handsomest and finest quays in Europe. The city is well built, and its commerce is extensive and flourishing. Waterford now communicates with Dublin, Limerick, and Cork, by railroads and canals. Population, 28,820. In the vicinity is *Wexford*, a trading town, with 11,000 inhabitants.

Galway, on the western coast, is a place of some trade, with 17,000 inhabitants. In the vicinity, are *Tuam*, the see of the archbishop of Connaught, and *Ballinasloe*, noted for its great cattle fairs, at which 120,000 sheep, and 40,000 cattle, are sometimes collected.

Other principal places are *Kilkenny*, now reduced from its former importance, with considerable woolen manufactures, and 19,000 inhabitants; *Drogheda*, a trading town upon the Boyne, in the neighborhood of which, James the Second was defeated by William the Third, 17,365 inhabitants; *Dundalk*, with linen and muslin manufactures, 11,000 inhabitants; *Newry*, *Londonderry*, and *Sligo*, places of considerable trade with about 10,000 inhabitants each, and *Valentia*, a village on the southwest coast, with a good harbor, remarkable as the most western in Europe.

4. *Manufactures.* The linen manufactures have long been the most important branch of manufacturing industry in Ireland, but for some years have been on the decline. The cotton manufacture has been more recently introduced, and is rapidly increasing. The distilleries of Ireland are extensive, and a considerable quantity of whisky is exported. The industry and resources of the country have been greatly developed during the last twenty years.

5. *Agriculture.* Agriculture is very backward. The cultivators are generally not proprietors of the soil, and studiously avoid any permanent improvement of the land, lest the rent should be raised. The Irish are idle, and their implements of husbandry very rude. Wheat is not generally cultivated, and what is raised is often inferior. Barley is now common, but oats are raised in a tenfold proportion to that of any other grain. The Irish staff of life, however, is another article, which is so extensively cultivated, as to confer upon this island, the name of the "land of potatoes." This root furnishes to the poor the greatest part of their sustenance. It is remarkable, that a plant, brought originally from America, and hardly known in Europe a century ago, should now be so universally cultivated in Ireland, and grow in such perfection there. Even in the United States, this vegetable is called the Irish potato; this, however, is to distinguish it from the sweet potato of the south. The dairy is the best managed part of Irish husbandry.

6. *Commerce.* The coasting trade between Great Britain and Ireland is active; the latter receiving from the former almost every sort of manufactured articles, coal, &c., and exporting, in return, potatoes, salted and other provisions, butter, corn, linen, spirits, and fish. The foreign trade of Ireland is not very extensive, but is on the increase. The shipping amounts to 100,000 tons.

7. *Inhabitants.* In the eastern part, the people are chiefly of English descent; in the west, the originally Celtic race is less mixed, and in the north, there are many people of Scottish descent. The common classes are strongly marked with the national peculiarity of features, and by this they are readily recognised in other countries. These classes have little beauty, for their indigence exposes them to many physical wants and hardships. This observation, however, will not apply to the class in more easy circumstances. The Irish have clearer complexions than the Scotch, and they are hardy and strong; they are rather less in height than the English; the orders are the same as in the rest of the United Kingdom.

8. *Dress.* There is no national form of dress, except that of England, and this is somewhat varied. It consists in a coat of frieze, a waistcoat of the same, a shirt of linen, made at home, and breeches, purchased at the shops, seldom fitting, and never buttoned at the knee. Some districts are marked by the color of the frieze. A traveler concludes at once, from the common dress, that he is in a country of extreme poverty. The dress is often but a broken patchwork of rags, sometimes not entirely hiding the skin; and children, of neither sex, have stockings or shoes; many of these, indeed, go half naked, and some go entirely bare; shoes and stockings are, with many adults, but things of ostentation, worn as in Scotland, at church. On Sunday, few are ill-dressed; one suit is kept sacred for festivals, at which, there are both shining faces and goodly apparel. The men wear their hair long and shaggy, though they dress better than the women. On holidays, the women wear white gowns and colored petticoats, and have a cloak thrown over the arm. Vast quantities of old clothes are imported from England, in every grade of shabbiness.

9 *Languages.* The English is the general language, though not always spoken even by the

intelligent, without some of that well-known intonation, which is called the *brogue*. In the south and west, the Erse or Gaelic is so general, that a stranger, who knows only English, can neither communicate nor understand.

10. *Building.* The houses, even of the rich, are far less elegant and comfortable than in England; they are square and gloomy edifices. The cabins of the poor are as slight protections from the climate as were ever reared in civilized countries. They are without chimneys or floors, and are made of mud and straw, and covered with sods or heath; many have no windows, and few have more than a single pane. The door is often but a straw mat. The furniture is in keeping with the house, and if there be any besides the *crock*, it is but a chest, a bench, a table, and a bed. There is but one room, and this is free, not only to any person to enter without knocking, but equally open to "the fowl and the brute." The villages often consist of whole streets of mud cabins. The city of Dublin, the centre of which is hardly surpassed in Europe, for the beauty and splendor of its edifices, is surrounded by miserable hovels, inferior in comfort to the wigwam or tent of the western savage.

11. *Food and Drink.* There is little variety in the food of the greater part of the Irish, which consists principally of buttermilk and potatoes, though in spring, there is not always a sufficiency even of these, and the scarcity often rises to a famine. A cow is kept in almost every cabin, but neither butter, cheese, nor even poultry and eggs, are ever thought of by the common people as articles of food for themselves; these go to pay rents, taxes, and tithes, and the buttermilk only is reserved for the proprietors. Every family has, if no other furniture, at least one capacious article, called a *crock*, or kettle, which is convertible to many uses. The water is brought home, clothes are washed, potatoes boiled, and the harvest of potatoes often brought home in the *crock*. The *crock* or potato bowl is placed in the middle of the floor, and the family gather round it, squatting on their hams to eat; at least, this is the practice where there are no tables or movable seats. The beggar is as welcome as an inmate of the cabin, and is never turned from the door; such inhospitality, it would be feared, would bring a curse upon the cabin. Animal food is seldom tasted, or indeed anything as food but potatoes, by the mass of the people.

The number of the indigent in Ireland, and the degree of misery to which they are often reduced for food and other necessities of life, can hardly be imagined in this country, where famine never comes, and where pauperism scarcely exists, except what is created by the improvident emigrants from Europe. Many of the towns in New England are without a single pauper, and there are but few in the whole United States. But the "Cork Reporter," of a late date, says, that "in three parishes of that city alone, there have been found no less than 26,000 paupers, and the whole city is supposed to present an aggregate of 60,000 persons, without the means of providing for themselves. The number of persons who die of mere starvation in a country like this, must be considerable.

The Irish are temperate from necessity, as their poverty seldom permits them to have the dignity of denial. Whisky, however, is a constituent part of festivals, and acting on the ardent national temperament, leads to quarrels, which are called *rows*. Many of the hard-earned gains are expended for whisky, though the consumption of this is on the decrease. Up to 1829, there was a progressive increase in the consumption of spirits in Ireland. In 1830, there was a decrease, of home made spirits alone, of 210,903 gallons, and in the first half of 1831, a decrease of 721,564 gallons; while in Scotland, during the same time, the decrease was 513,687 gallons.

12. *Traveling.* All that used to be so uncomfortable and ludicrous in Irish posting, has disappeared, and in the frequented parts, the traveler finds good roads, vehicles, and accommodations. The inns, indeed, are inferior to those in England, and in the more humble kinds it is not unusual to see a sign which promises the traveler "dry lodgings," or "entertainment with beds."

In the remote parts, the traveler must shift as he can, and he must sometimes travel on a small car with very low wheels. Some of these have but a flat bottom, fastened upon the axletree. The jaunting car, in which the common people of Dublin take their family excursions, is a large cart, that will carry a great many people, who sit on two long seats and ride sideways.

13. *Character, Manners, and Customs.* It must be admitted; that the sway of the British government in Ireland has been of a kind to depress the spirit and debase the character of the people. It has been thought to be a good measure for the security of the union, to keep the

Irish ignorant and poor, rather than intelligent and prosperous. Disabilities, political, civil, and ecclesiastical, have been imposed upon them, and it is only of late, that they have been in some degree emancipated. The country has been divided, and sometimes by the policy of the government, into internal parties, which have committed the most ferocious murders and massacres. These, however, have been the effects of oppression, acting upon a temperament naturally ardent, rather than the outbreak of a character, in itself cruel and ferocious.

The Irish, then, are ardent, brave, generous, and, to a great degree, faithful to their trusts. Of this latter trait, many instances have occurred in the course of the various armed and other political associations in which they have been engaged. They are cheerful, and no people will on festivals so completely throw off all remembrance of care, to enjoy the passing hour. They are, however, easily offended and prompt to resentment; duels are not rare among the gentry, or less dangerous appeals to force unfrequent among the lower class. The club, under the name of a *shillala*, is a general accompaniment at fairs, where it is sometimes put to other uses than those of a staff. This facility with which the Irish fall into anger, was supposed, by some writers, to have supplied the name of their country; Ireland or Land of Ire. Selfishness, however, hardly enters into their composition, and it is so much an Irishman's impulse to give, that charity in him is scarcely a virtue. He has indeed little to bestow, but in times of plenty or famine, and at all times, the beggar is held to have as good a title to whatever the cabin contains, as the master himself.

An Irishman has great quickness of apprehension, and it appears in nothing more than in sudden retorts and repartees. It may almost be affirmed of him, that

"He never said a foolish thing,
And never did a wise one."

The very beggars have a natural eloquence and tact that is irresistible; and when solicitation fails, they employ no measured degree of sarcasm or imprecation. They have indeed great incitement to importunity, for a penny is a provision for a day. Girls and boys will run by the side of a stagecoach for half a dozen miles, in the hope of a few halfpence from the passengers. In Scotland, it is rare to find an importunate beggar, or in Ireland one of any other description.

To a stranger, the common Irish are obliging and civil, and in this respect are different from the same class in England. Nothing can be more rude and insolent than the boys and men of the lower class in the latter country. In Ireland you can hardly ask a favor within the power of an individual, that is not cheerfully granted. An Irishman is loquacious and has sometimes a strange confusion of speech, or a sort of transposition of ideas, known as a *bull*. He speaks as he acts, upon the first impulse, and begins to express a thought the moment it strikes him, and sometimes before he understands what it is. His mind is a mirror, and his speech discloses all the figures, whether distinct or confused, that pass before it. He generally answers a question, not like a New England man, by asking another, but by repeating it. When a traveler inquires for post horses, he will get this reply; "Is it post horses you are asking for? we have." The Irish are a people of great humor and wit, and Steele, Goldsmith, Farquhar, Sheridan, Curran, Grattan, and Swift were natives of Ireland.

The domestic affections are strong in the Irish, and there is not in the whole island, so much desertion of parents by children, or of children by parents, as there is evidence of in England, within the walls of one poor-house. Orphans are distributed among the cabins, where there is little distinction made between them and the children of the family. There is little reverence or affection in the lower class, towards the gentry, and the Irish peasant, unlike the English, will seldom salute on the road, one of the higher orders; where many of the landlords are absentees, there can be little kindly feeling between them and the tenants; and the leases are often held by middle men, who underlet the lands to those who cultivate them. Though many of the leases are sufficiently long for the advantage of the cultivators, there are few who will make improvements. In the general estimation, a slight advantage to day overbalances a greater one that may accrue to-morrow. Of course, under such discouragements, the Irish are not greatly inclined to agricultural labor, and they take every advantage of the holidays in which the Romish church is so liberal. A traveler asked one of the considerable tenants why he made no improvements, and received the general answer, "Sure I've only 21 years' lease, and 9 years of it gone, and to make the ground better, would be raising the rent on myself, and I wish to kape the bit of ground at the rent for the childer any how." Ireland is the country of expedients; the remedy for bad fences is to tie together the legs of quadru-

ped, with ropes of straw ; two goats are as inseparably yoked as Chang and Eng, and even fowls are fettered. A sheep is connected by a running ring to a rope, which is tied to two stakes, and removed when the pasturage is consumed. The higher orders of the Irish are distinguished for hospitality and frankness. They are much given to convivial pleasures, and one of the most favorite employments is that of a wine merchant. Our remarks, however, on the Irish character, are chiefly drawn from those who make by far the greatest class. The Irishman who would advance his fortunes must pass beyond the limits of his country ; and those of his country are found high in station in every nation in Europe. The qualities that depress him at home, elevate him abroad. In the northern and northeastern portions of the island, the inhabitants are chiefly of Scottish descent ; they are Protestants ; many of them belong to the Church of England, and others are Presbyterians. There is little difference of character between these and the people of Scotland.

14. *Amusements.* The Irish are a very cheerful people, and dancing is the favorite national amusement. There is no assemblage of the common people without a dance, and few are so poor as not to entertain a dancing-master, whose charges, however, are exceedingly low. The athletic exercises which are general in England, are many of them common in Ireland. Sunday is the day which is most devoted to amusements among the Catholics ; and two baronies or counties will sometimes have their champions for hurling stones, or pitching bars. The Sunday cake never fails in its attractions. This is a huge cake, purchased by subscription, and placed on a distaff, in a field near an alehouse ; and it is the prize of the best dancer, or archest wag, of the company. The piper is a necessary part of the festival, and he is seated on the ground, with a hole dug before, in which he receives the presents.

15. *Education.* The condition of the Irish has been much improved, with regard to the advantages of education, though there is much to be done before they will be as well educated as the people of Scotland. In 1825, there were 1,702 schools, though, since then, the number has much increased. More than 1,300 were founded by the Hibernian Society, which was formed at London. The Protestant Society has upwards of 500 schools, and the Christian Brotherhood 24. These are kept by men who throw all they have into a common stock, and devote themselves to celibacy, and the education of the poor, to which they bind themselves by a vow. There are 46 female schools connected with nunneries, besides which there are 350 day schools supported by subscription, and many Sunday schools. There is a Roman Catholic college at Maynooth and Carlow, and a Jesuit college at Clongows. There is but one university ; this is at Dublin, it has about 400 students, and is an institution of very high character.

16. *State of the Arts.* The arts are not in a flourishing state in Ireland, principally from the want of the encouragement that the residence of the rich proprietors would give. The useful arts are far lower than in England or Scotland, and the ornamental ones are little cultivated. A taste for music is common, and no man is more welcome in an Irish house than a piper or a harper. Many of the old national airs are sweet, but they are not so widely spread as those of Scotland.

Ireland has contributed her full share to the literature and sciences of the United Kingdom, and there are no names more celebrated than Burke, Swift, Goldsmith, Sheridan, and Moore. The great national bent of genius seems to be towards wit and eloquence, and this appears not only in the distinguished men, but in the mass of people ; for the very beggars pursue their vocation with a union of these two qualities that is often irresistible.

17. *Religion, &c.* The general religion is the Catholic, though the established church is that of England. The Catholics of Ireland are therefore taxed for the support of two hierarchies. Four fifths of the inhabitants are Catholics, and the other fifth is composed principally of Episcopalians, Presbyterians, Methodists, and Baptists. The established church has 4 archbishoprics, and 18 bishoprics ; attached to which are 670,000 acres of land. The income of the church is about 5,000,000 dollars. Provision has lately been made by the Imperial Parliament for the diminution of this enormous abuse, by the gradual abolition of 2 archbishoprics, and 8 bishoprics, thus leaving 2 of the former and 10 of the latter. This arrangement is to take place on the death of the incumbents, and is already partially effected. Only one ninth of the population belongs to the established church. There are 27 Catholic archbishops and bishops, 1,500 parish priests, 3,000 curates, and 984 benefices, averaging 6,000 souls. In every parish there is a chapel. The established church is chiefly supported by the payment of a composition for tithes, and the Catholic church by contributions and fees for mar-

nages, burials, masses, &c. The Irish pay their own clergy willingly, but they look upon the money which goes to the English clergy, as cruel extortion. The last cow and the last pig are often forced away by the officer to satisfy the demand of an English clergyman, whose doctrines they disbelieve, and from whom they receive nothing but evil. The Catholic religion and the Catholic clergy afford them their best comforts and consolations ; while the Protestant religion is made to bring upon them their greatest sufferings. It is but natural, that they should cling to the first, and hate the last. The Catholic clergy are exceedingly zealous, and live on terms of familiarity with their flocks. They advise them on worldly affairs, and generally act as their lawyers. The churches have few pictures or images. The stipend of a priest is about £ 150 a year. The fee for a marriage is from 5s. to a guinea ; for a christening, from 2s. to half a crown ; for visiting the sick 1s., and for burials and masses, from 2s. to several pounds.

Numbers of each Religious Sect in 1831.

Roman Catholics	-	-	-	-	-	-	-	6,427,712
Established Church	-	-	-	-	-	-	-	852,000
Presbyterians	-	-	-	-	-	-	-	642,350
Other Protestants	-	-	-	-	-	-	-	71,800

18. *Funerals.* The funerals of the common Irish are peculiar. They are preceded by a *wake*, where the friends sit up all night with the corpse, eating and drinking, as if on an occasion of festivity. Female mourners are paid for the ulalulu, or howling at the burial ; a custom which is common in some eastern countries. They address questions to the corpse, as " Why did you die, or why did you leave us ? " The processions are long and clamorous. Many who walk in them are covered with long blue cloaks.

19. *Government.* Ireland is still denominated a distinct kingdom, but it is governed by a viceroy appointed by the king, called Lord-Lieutenant of Ireland. There is also an Irish chancellor, a secretary of state, a commander of the forces, and attorney-general. The island was incorporated with the kingdom of Great Britain, in 1800. There is now no separate parliament, but Ireland is represented by 32 peers and 105 members of the House of Commons, in the parliament of Great Britain. The citizens of Ireland are entitled to the same privileges with those of England, in all matters of commerce and provisions under treaties. By the catholic emancipation bill, certain restraints and disabilities are removed. This bill was passed in the year 1829, and by it, all catholics are eligible to all offices of state, except the Chancellorship, the Lord-Lieutenancy of Ireland, the Regency of the United Kingdom, and the High Commission of the church of Scotland. Catholics are still excluded from the right of presenting to a church living. Connected with the emancipation bill, was another law, which disfranchised the 40 shilling freeholders, and raised the qualification of electors to an income of 10 pounds from real estate. By the reform act, the elective franchise was extended to persons occupying a tenement of ten pounds' yearly value, and to copyholders, and some other tenants, but the number of electors is small.

20. *Bank.* There is a national bank at Dublin, called the *Bank of Ireland*, with a capital of 3 millions sterling. Its profits arise from a trade in bullion, and the discounting of bills of exchange. It is under the superintendence of a governor, deputy governor, and 15 directors, all chosen yearly.

21. *Laws.* Generally, the laws are the same with those of England. There are, however, no poor laws, and the indigent have no aid but from charity ; Ireland is, therefore, the country for mendicity.

22. *Antiquities.* In the north of Ireland, are several of the round towers, that are found in Scotland ; but there are few architectural or other antiquities in the island.

23. *History.* The history of Ireland has been the theme of much discussion and dispute. It has been contended, that the island was colonized by the Phœnicians, who brought hither their religion ; and it is maintained, with some plausibility, that the round towers, and other monuments, with certain manners and customs, still lingering among the Irish, bearing an oriental cast, are witnesses of the fact. The traditions of the people, seem also to support the theory. It is certain, that the island was known, and was populous, several hundred years before Christ. The first inhabitants were doubtless Celts, and the Celtic stock still maintains the ascendancy in the country. Ireland presents, in the native tongue of its living inhabitants

the purest specimen, and, indeed, the only tolerably pure example, of the language of the Celts, while the people are the lineal descendants of the first settlers of Europe. These facts are to be accounted for, from the spirit of independence, which has ever characterized the people, and which prevented even the Roman Empire, that swallowed up the other portions of Europe, from setting the foot of her soldiery on Irish soil.

The annalists of Ireland, carry back their history to Kimboath, who reigned 200 years before Christ. From this period, down to the times of authentic history, they furnish a regular succession of kings. These, however, are, many of them, apocryphal. St. Patrick, who was first made a captive on the Continent, and carried to Ireland, effected his escape, and having been appointed to that service by the See of Rome, returned in 432, for the express purpose of Christianizing the people. He found them governed as they had been for centuries, by several petty kings, generally acknowledging one principal sovereign. The Saint addressed himself to them, as well as to the druidical priests, and in 30 years, by his zeal, discretion, and piety, Christianity was spread over the whole island.

The ancient system of government was still continued, and though monasteries rose up, which, in the 7th and 8th centuries, became the seats of learning; and shone with considerable brilliancy, while the rest of Europe was shrouded in darkness; — still, there was no great improvement in the condition of the people. In the 9th century, the country was overrun by the Danes, who harassed the people for 200 years. They were at length defeated in the 11th century, by the celebrated Brian Borohm, and soon after expelled. But the country had been so weakened by its northern invaders, that Henry the Second, of England, made an easy conquest of a portion of the island in 1172. From this period, England has claimed the sovereignty of the country, though for three centuries her dominion was scarcely more than nominal; and even down to the present day, the mass of the people continue to be opposed to British sway. Ireland, having been treated as a conquered country, the hostility of the people has been kept alive; and while they were too numerous and too independent to be easily held in this state of subjection, it seems that measures of the utmost severity have been uniformly adopted by the British government. The country has, therefore, been often excited to rebellion, during which the most shocking scenes have been exhibited. As examples of the sufferings of this unhappy country, it may be stated, that in Cromwell's time, all the possessions of the Catholics were confiscated, 20,000 of the people were sold as slaves in America, and 40,000 entered into foreign service. After the battle of the Boyne, 1689, which restored the protestant ascendancy, King William proscribed the adherents of James the Second, and confiscated their estates to the amount of millions. Great numbers of the Irish entered foreign service, and it has been computed, that from 1691 to 1745, nearly half a million fell in foreign service.

In 1782, a short respite from these measures of tyranny was granted to Ireland. The Irish parliament was then placed on the same footing as is that of England. Under these circumstances, Dublin became a centre of attraction, and the gentry, instead of living in England, now resided on their estates. The effect of this state of things was magical. The country rose from its state of depression with astonishing rapidity, and Ireland began to display the resources of the country, as well as the genius of the people. But this happy prospect was soon eclipsed. A rebellion broke out in 1798, which being suppressed, Ireland was united to the British crown, in 1801. Since that period, there has been an almost constant succession of rebellions, and riots, — either excited by the oppression of government, or the starvation of the people. Within a very few years, some alleviation has been granted, by the removal of the Catholic disabilities, but the Irish people, at home, and those who seek their fortunes in other lands, seem destined to bear that heaviest of burdens, — the conviction, that their country is the victim of tyranny.

CHAPTER VI. XV. FRANCE.

*A Street in Paris.*

PHYSICAL GEOGRAPHY.

1. *Boundaries and Extent.* France is bounded north by the English Channel and the Netherlands ; east by Germany, Switzerland, and Italy ; south by the Mediterranean and Spain ; and west by the Atlantic, or rather an open gulf called the Bay of Biscay. From Switzerland, Italy, and Spain, it is separated by mountains. It extends from $42^{\circ} 30'$ to 51° N. latitude ; and from 18° E. to 5° W. longitude. Its greatest length from north to south is 590 miles, and its breadth is about the same. It contains 205,000 square miles.

2. *Mountains.* The *Cevennes* form the central chain. They rise in the south, on the west of the Rhone, and extend northerly between that river and the Lo're. They diverge into various branches easterly and westerly. About the head streams of the Loire, west of the main chain, is a branch called the Puy de Dome, which contains some extinct volcanoes. The southern branch is called the *Cantal*, and between these are the *Monts d'Or*, the highest mountains in France. These branches are called the mountains of Auvergne. The highest point is the Puy de Sansi, 6,330 feet above the level of the sea, which approaches within 98 feet of the height of Mount Washington in New Hampshire. This group of mountains covers an extent of 120 miles, and is composed chiefly of basaltic rocks. In winter they are exposed to dreadful hurricanes of snow, which fill up the ravines and confine the inhabitants to their houses. Sometimes communications throughout a neighborhood are effected by means of long arches under the vast masses of snow. In summer, thunder-storms with torrents of hail are frequent. On the eastern borders of France are the *Vosges*, a chain of low and rounded elevations running north and south. They are covered with rich pastures, and on the southern and eastern slope with vines. They abound in minerals, and one of the valleys affords a precious green granite. The highest summit of these mountains is 4,580 feet. On the borders of Switzerland is a range called the *Jura* ; and further south are the *Alps*, which separate France from Switzerland and Italy ; some of them are granitic, and others calcareous.

In the south are the *Pyrenees*, separating France from Spain. They run nearly east and west, and the western extremity of the range extends into Spain. They will be described in the chapter on that country.

3. *Valleys.* The valley of the Garonne is formed by the Pyrenees on the south, the Cevennes on the east, and the Cantal and some other ranges on the north. The valley of the Rhone is formed by the Jura on the north, the Alps on the east, and the Cevennes on the west. The valley of the Loire is bounded by the Cevennes on the north and west, and by the Cantal and Monts d'Or on the south. The valley of the Seine is bounded by a branch of the Cevennes on the south, and a range of chalky hills on the north.

4. *Rivers.* France is a well watered country. It is computed, that it contains 6,000 rivers, 300 of which are navigable. In the north is the *Seine*, flowing northwesterly into the English Channel at Havre. It is 450 miles in length. Its borders for the most part are exceedingly fertile and beautiful. It flows by Paris, but is not navigable for large vessels up to this city. The *Loire* is the longest river of France, and has a course of 600 miles. It rises among the Cevennes and flows north and west into the Bay of Biscay. It is navigable by boats to within 90 miles of its source. Between Angers and Nantes it is one of the finest rivers in the world, with a wide current, woody islands, and bold and cultivated shores. Its depth is from 7 to 10 feet. The alluvial deposits form shoals at its mouth which are continually increasing.

The *Garonne* rises in the Pyrenees within the limits of Catalonia, and runs northwesterly into the Bay of Biscay. Its course is 350 miles. Near the sea it is joined by the Dordogne from the east, and the united stream is called the *Gironde*. Its mouth is full of shoals. Bordeaux stands upon the Garonne, just above the junction with the Dordogne; and Toulouse is on the upper part of its course. Between these cities it is navigated by the largest boats, and from Bordeaux to the sea by ships. The tide flows nearly 90 miles up the stream; and is sometimes preceded by a huge billow, that sweeps destructively along the shore. The scenery between Toulouse and Bordeaux is beautiful; the river passes through extensive plains of luxuriant fertility. The land about its mouth is rocky and barren.

The *Rhone*, for swiftness and depth, is distinguished among the rivers of France. It rises from a glacier on the western side of Mount St. Gothard in Switzerland. It flows 100 miles in that country to the lake of Geneva, through which it passes westerly into France. At Lyons it is joined by the Saone from the north, and the united streams under the name of the Rhone, flow south of the Mediterranean; it joins the sea by two principal mouths. Only small vessels enter by the western channel; the eastern is deeper, but on account of the swiftness of the current, the navigation up the river is difficult. The entire course of the Rhone is 500 miles. Its waters are of a light blue. From Lyons to Avignon, a distance of 140 miles by the course of the river, the banks of the Rhone are extremely picturesque, winding among rocks and mountains, and offering to the eye a romantic and perpetually varying scenery. Between Lyons and Vienne, are seen forests, vineyards, *chateaux* on commanding eminences, and cottages embosomed in trees, retiring from the view; these, with the busy traffic on the majestic river, and the prosperous villages along its banks, afford an enchanting spectacle to the eye of the traveler. The *Saone* which flows into the Rhone below Lyons, is so tranquil, that it is difficult to perceive which way the current sets. The swift current of the Rhone refuses to mingle with the Saone for some time after their junction, and a distinct line of separation can be seen between them for many miles. The Isere and Durance rise among the mountains of Savoy, and flowing westerly fall into the Rhone. The *Somme* flows into the English Channel; the *Charente* and *Adour* into the Bay of Biscay.

The *Escaut* or *Scheldt*, the *Meuse*, and the *Moselle* rise in the northern part of France and pass into Belgium. The Rhine washes a small portion of the eastern boundary.

5. *Lakes.* There are no lakes that deserve the name in France. Near the coast of the Mediterranean, are some shallow ponds or *etangs*, in which salt is manufactured.

6. *Islands.* The island of *Corsica*, in the Mediterranean, forms a part of the kingdom of France. It is about 100 miles from the French coast. It is 116 miles long, and about 59 in width. It is mountainous, and one elevation rises to the height of 9,246 feet. At a distance, the island has the appearance of an enormous pyramid of mountains. Fertile vales lie among the ridges in every part. The slopes are covered with forests of oak and fir, and they contain rich silver mines, with iron, copper, lead, antimony, alum, marble, porphyry, and jasper. The soil produces wine and olives. The inhabitants amount to 185,000. Bastia, the largest town, has 9,316. Ajaccio, on the western coast, was the birth-place of Napoleon. The land in Corsica is mostly public property. The commerce consists chiefly in the exportation of coral, which abounds on the coasts. A narrow strait on the south divides this island

from Sardinia. The main land of Italy is within 50 miles of the northern part. In the Bay of Biscay, are the isles of *Noirmoutier*, *Oléron*, *Ré*, and *Belleisle*, which are productive in wine. *Ushant*, or *Ouessant*, lies off the northwestern extremity of France, and is the most western spot in Europe occupied by the French.

7. *Bays and Gulfs.* The *Bay of Biscay* is an open gulf on the west, formed by the coasts of France and Spain. On the coast of the Mediterranean is the *Gulf of Lyons*,* so styled in the middle ages from the frequent tempests which occurred there. The *Gulf of St. Malo*, in the English Channel, contains the islands of Guernsey, Jersey, and Sark.

8. *Shores and Capes.* Two large promontories lie on the northwestern coast. That of *La Hague* projects into the English Channel, and that of *Raz* forms the westernmost point of France. The coasts rise gently from the sea, and in some places exhibit high cliffs. In the southern part of the Bay of Biscay, the coast is flat and sandy.

9. *Climate.* The air of the northern part is moist, and there are considerable snows and sharp frost in winter. At Paris, the Seine is frequently frozen so as to admit of skating. In the central parts, no snow falls, sometimes for many years; frosts seldom occur, and the air is pure, light, and elastic. The harvests begin from the latter part of June to the middle of July. The south of France, from the Loire to the Mediterranean, is subject to violent storms of hail and rain, which destroy the crops. One tenth of the produce, upon an average, is yearly damaged by these storms. Thunder-storms are frequent and violent; they produce cataraacts, which rush down the mountains, burying the meadows under heaps of stone and masses of mud, and cutting the sides of the mountains into deep ravines. In most parts of France, frosts are common late in the spring and early in autumn, which do great injury to vegetation. The high country of Auvergne is bleak and cold, and all the districts of the Vosges are affected by the snow, which sometimes continues to fall upon these mountains as late as the end of June.

In the southern provinces, the summer is exceedingly hot. The vintage is in September. At the end of autumn, violent rains fall; but October and November are the pleasantest months in the year. In December, January, and February, the weather is fine; but after February, a strong northeasterly wind, called the *Mistral*, blows, sometimes with snow, but generally with a clear sky. It is sometimes so violent upon the mountains as to blow a man off his horse. At Avignon, the olive-trees are frequently killed by it. The south of France may be characterized as possessing a mild and salubrious climate. Montpellier, on the shore of the Mediterranean, is celebrated for the purity of its air.

10. *Soil.* France is generally a fertile country, but the soil varies much in different provinces. The northeast is the richest part; there are admirable corn districts along the Seine, Rhine, and Moselle. The hills of Champagne and Burgundy produce the most excellent vines. The valley of the Garonne has a warmer soil, but it is less productive than that of the northern districts.

11. *Geology.* The Cevennes are composed of granitic rocks, supporting basalt. Granite also constitutes the foundation of most of the other mountains. Some parts of the Alps are calcareous. Chalk formations are common in the north. Gypsum is abundant in the country around Paris, and from this city it has received its popular name.

12. *Natural Productions.* The common forest trees are oak, birch, elm, ash, and beech. Forests of pine and fir extend along the Atlantic coast, and upon the Vosges and Jura mountains. The only fruit-trees indigenous to the country are, the fig, apple, pear, and plum. The cherry-tree and vine were brought from the East by the Romans. The Greek colonies on the shores of the Mediterranean transported thither the olive, a native of Mount Taurus, in Asia. The orange, lemon, and white mulberry were brought from China, the black mulberry from Asia Minor, the apricot from Armenia, the peach from Persia, the almond, walnut, and melon from different parts of Asia, and the pomegranate from Africa.

13. *Minerals.* Coal is abundant, but the beds lie at a distance from the sea, and are little worked. There were formerly many copper mines, but they are now chiefly abandoned. There is a gold mine, unwrought, in the eastern part. Lead is found in Brittany, and manganese abounds in sufficient quantities to supply the whole of Europe. Silver, iron, cobalt, nickel, cinnabar, and arsenic are sometimes found. Among the stones and earths are the hyacinth, emerald, beryl, tourmaline, amethyst, chalcedony, and turquois, porcelain earth, chalk, marble, and gypsum.

* This name is incorrectly written Lyons, which has led to the general belief, that it was called after the city of that name, which is 150 miles inland.

14. Mineral Springs. There are no less than 240 mineral springs in France. Those of Aix, in the south, were known to the Romans; they contain sulphur, lime, and salt. At Bagnères, are several warm springs. The greater part of the mineral springs are under the superintendence of physicians appointed by government. Accommodations for the sick are provided at 151 of them. There are salt springs in the Department of Jura, from which salt is manufactured.

15. Animals. Bears are numerous in the Pyrenees, and in the Alpine districts; and commit frequent ravages among the corn-fields. Wolves and wild boars are found in the forests, in various parts. The ibex and chamois inhabit the Alps and Pyrenees. The fox, otter, wildcat, martin, squirrel, and beaver, are known in different districts; scorpions are common in the southern provinces.

16. Face of the Country. France generally exhibits a level, but not undiversified surface. The most level tracts are in the north. The picturesque beauty of the hilly parts is heightened by the rich and luxuriant verdure of the chestnut-trees. In the south, the deep hue of the olive gives rather a sombre look to the landscape. From the mouth of the Garonne to the border of Spain, the coast consists of a flat, sandy, barren tract, called the *Landes*, extending 30 miles into the country, and producing nothing but heath, broom, and juniper. The remainder of the country is, in general, agreeably diversified with gentle undulations.

POLITICAL GEOGRAPHY.

1. Divisions. France is divided into 86 Departments; these are subdivided into Arrondissements; these, into Cantons; and these, into Communes.*

* Before the Revolution, France was divided into 32 Provinces, the names of which, as they are connected with many historical associations, still continue in popular use, although their political significance has ceased. The following are the names of the Ancient Provinces, with the Departments into which they were changed.

Ancient Provinces.	Departments.	Ancient Provinces	Departments.
Flanders,	North.	Franche Comté,	{ Upper Saone, Doubs, Jura.
Artois,	Pas de Calais.	Poitou,	{ Vendée . Two Sevres, Vienne.
Picardy,	Somme.	La Marche,	{ Creuse, Upper Vienne. Correze.
Normandy,	{ Lower Seine, Calvados, La Manche, Orne, Eure.	Limousin, Bourbonnais, Saintonge and Angou- mois, Aunis and Saintonge,	{ Allier. Charente.
Isle of France,	{ Seine Seine and Oise, Oise, Seine and Marne, Aiane.	Auvergne,	{ Lower Charente. Puy de Dome, Cantal.
Champagne,	{ Marne, Ardennes, Aube, Upper Marne.	Lyonnais,	{ Rhone, Loire.
Lorraine,	{ Meuse, Moselle, Meurthe, Vosges.	Dauphiny,	{ Isere, Upper Alps, Drome.
Alsace,	{ Upper Rhine, Lower Rhine.	Guyenne, with Gascony,	{ Dordogne, Gironde, Lot and Garonne, Lot, Tarn and Garonne, Aveyron, Gers, Landes, Upper Pyrenees.
Brittany	{ Ille and Vilaine Cotes du Nord, Finisterre, Morbihan, Lower Loire.	Navarre, with Bearn, County of Foix, Roussillon	{ Lower Pyrenees. Arriege. Eastern Pyrenees.
Maine,	{ Mayenne, Sarthe.		{ Upper Garonne, Aude, Tarn, Herault
Anjou,	{ Maine and Loire.	Languedoc,	{ Gard, Lozere, Upper Loire, Ardeche.
Touraine,	{ Indre and Loire.	Provence,	{ Lower Alps, Mouths of the Rhone, Var.
Orléannais	{ Loiret, Eure and Loire, Loire and Cher.	County of Venaissin, and Avignon,	{ Vaucluse.
Berry,	{ Indre, Cher.	Corsica,	{ Corsica.
Nivernais,	{ Nièvre.		
Burgundy,	{ Yonne, Cote d'Or, Saone and Loire, Ain.		

2. *Canals.* There are 86 canals in France, having a total length of 2,350 miles ; only the principal can be mentioned here. The *Canal of Languedoc* extends from the Garonne, near Toulouse, to Cette, on the Mediterranean, which it thus connects with the Atlantic. It is 142 miles in length, 60 feet wide, and 6 deep, and passes through the bill of Malpas, by a tunnel 720 feet long. The *Canal of the Centre*, or the *Charollais Canal*, connects the Loire with the Saone, at Chalons, and is 72 miles in length. The *Canal of Monsieur* connects the Saone with the Rhine, at Strasburg, passing by Dole, Besançon, Montbeliard, and Muhlhausen, with a branch to Bale ; total length, 215 miles. The *Canal of Burgundy*, 150 miles in length, connects the Yonne, a tributary of the Seine, with the Saone, passing by Dijon, and thus forms a communication between the English Channel and the Mediterranean. The *Briare Canal* connects the Loire, at Briare, with the Seine, passing by Montargis ; length, 67 miles, the *Orleans Canal*, which terminates near that town, and connects the Loire with the Briare Canal, may be considered a branch of the latter ; it is 45 miles long. The *Canal of Brittany* extends from Nantes to Brest, a distance of 230 miles. The *St. Quentin Canal* connects the Oise, at Chauny, with the Scheldt, at Cambray, passing by St. Quentin ; length, 58 miles. The *Somme Canal* connects the last mentioned with the Channel, passing by Ham, Peronne, and Amiens, in the valley of the Somme, and terminating at St. Valery, at the mouth of that river.

3. *Towns.* *Paris*, the capital of France, and the second city of Europe, in point of population, stands upon both sides of the Seine, having a circuit of about 15 miles, and containing a million inhabitants. It is upwards of 200 miles from the mouth of the Seine by the course of the river, though but 112 miles from Havre, at its mouth, by the post roads. The environs do not present the same variety of gardens, parks, and villas, as those of London, nor is the stream of life in the great streets, the crowd of carriages, horsemen, wagons, and foot passengers, so great as in the neighborhood of the British capital. But it may be considered the capital of the world for the sciences, arts, and politeness. It is enclosed by a wall 17 miles in circuit, and is more closely built and inhabited than London. Surveyed from a central point, it presents a form nearly circular, with the river flowing through it. In the river are 3 small islands, one of which, in the time of Julius



Paris.

Cæsar, was inhabited by a tribe of barbarians, called *Parisi*, and from them the city, which gradually grew up around their cottages of clay and straw, received its name. By the Romans, it was called *Lutetia*, and the Emperor Julian made it his residence. Clovis made it the seat of his court ; it was enlarged by many of the French Kings, and Napoleon added those vast improvements and embellishments which render it the admiration of every visiter.*

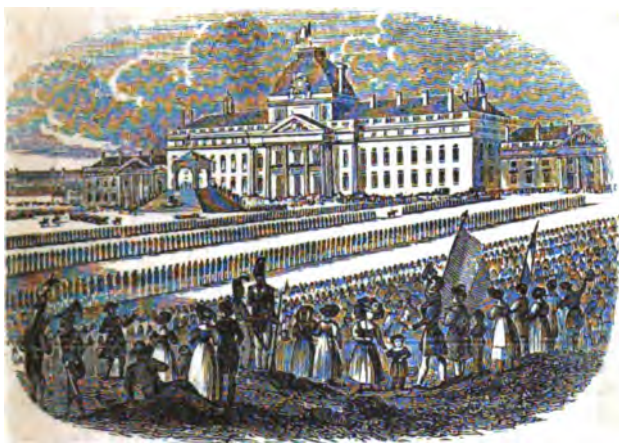
The eastern part is the most ancient, and most irregularly built ; here the streets are narrow

* Paris is under eternal obligations to Bonaparte ; he did more for it than even Louis the Fourteenth. He combined, in a greater degree, the useful with the magnificent. Despot as he was, he saw that the mass of people constituted a power which must not be dazzled merely, as in the time of Louis the Fourteenth, but conciliated and served. His designs are said to have been essentially his own. It seems most probable, that they could have been conceived only by the same mind which had the force, energy, and resources to execute them. He freed the bridges and banks of the Seine from the embarrassment and deformity of the old houses, by which they were still crowded ; built magnificent quays and wharves, and erected four bridges of remarkable beauty, as monuments of art ; before the Garden of Plants, from the Ile St. Louis to the Ile de la Cité ; from the Louvre to the palace of the Institute ; from the Quai de Chaillot to the Champ de Mars. He not only conceived (for even the conception was a great merit) but had nearly executed, at his fall, the Canal de l'Oureq, a gigantic public work, commencing at the river of that name, receiving tributary streams, communicating with other canals for the convenience and transport

of inland commerce, and conducted over a line of 15 leagues, to the plain of La Villette, 83 feet above the level of the Seine, for the purpose of supplying water to the capital. He distributed the public supply of water by 15 new and abundant fountains, of which some are beautiful specimens of architecture. The people, not merely of Paris, but of the whole kingdom, are indebted to him for the spacious markets, so commodiously arranged for the sale of every kind of produce ; for public stores, especially the wine stores, which surprise, by their vastness, the happy ingenuity of their distribution, and their architectural grandeur. He erected, near the barriers, 5 *abattoirs* or slaughter-houses, and thus relieved the city from the inconvenient and dangerous presence of herds of cattle, the revolting spectacle of blood, and the noxious miasmata of butchery and tallow melting. He cleared the Place du Carrousel, between the Louvre and the Tuileries, of its obstruction and nuisances ; adorned it with a triumphal arch, and filled its Gallery with sculptures and paintings ; he built a second gallery from the adjacent angle, so as to complete the square of the vast area of the Carrousel, and the junction of the Louvre with the Tuile-

and crooked. The western part is modern and well built. The Boulevards constitute a wide mall, with four rows of trees passing in an irregular course around the central part of the city ; they occupy the site of the ancient walls of Paris, rendered useless by the growing up of the city around them and are two miles in extent. There is nothing in Paris more striking than the Boulevards. The exterior Boulevard is a broad street on the outer side of the wall which encircles the city. But a small portion of this is built upon. The Boulevard most frequently mentioned, is in the midst of the city. Different parts of this are called by different names, as the Boulevard des Italiens, from its vicinity to the Italian opera, Boulevard du Temple, &c. It is impossible to convey an adequate idea of the liveliness of the Italian Boulevard at night. Multitudes of gayly dressed people are sauntering through it, while parties of both sexes are sitting beneath the trees, sipping coffee, lemonade, and *liqueurs*. The air is filled with music, and the magnificent buildings on either side are lighted as if for an illumination. In any other city, a scene like this would have something of bustle in it, but the Parisians live in public, and while they are always cheerful, they have seldom a busy air. They pass to and fro, as if contented and happy, and manifest little excitement, except by their animated conversation. To an American, this place wears the aspect of enchantment.

The Champ de Mars is an oblong park bordered by rows of trees, and extending from the Military School to the river ; it is the spot commonly appropriated to the reviews of troops



Champ de Mars.



Champs Elysees.

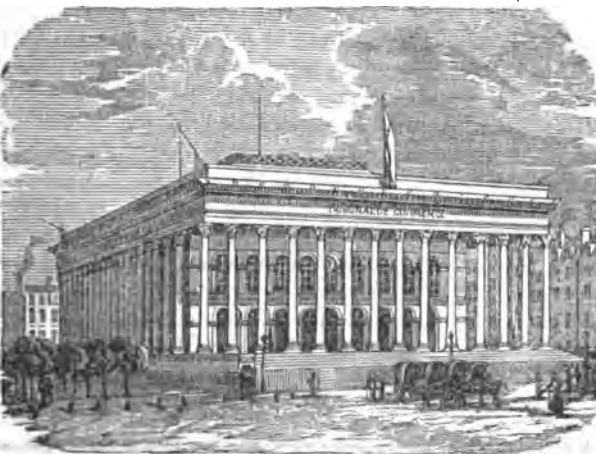
and great public festivities. The gardens of the Tuileries, to the west of the palace, are elegantly laid out with graveled walks, terraces, plots of flowers, shrubs, groves of trees, and basins of water, interspersed with beautiful statues in bronze and marble. These are the favorite walks of the Parisians, and on Sundays, they resort hither in crowds. The Luxembourg gardens, in the southerly part of the city, also afford beautiful walks. The Champs Elysees form a spacious common in the western part, and the entrance to the city in this quarter is one of the finest avenues in the world.

Walks are laid out in various parts of these fields, and superb national fetes are given here, on which occasions the trees are brilliantly illuminated. The subjoined cut represents the appearance of this spot in winter. The finest square in Paris is the Place Vendome, in the centre of which stands a column erected by Napoleon, in commemoration of the Austerlitz campaign ; it is covered with bas-reliefs in bronze, made from the cannon taken in the campaign. The banks of the Seine are beautified with noble quays, and the stream is crossed by 16 bridges, 12 of which are of stone, and 2 of iron. On the Pont Neuf stands

an equestrian statue of Henry the Fourth, in bronze, one of the finest ornaments of the city. A similar one of Louis the Fourteenth occupies a small area, called the Place des Victoires.

The Garden of the Tuileries owes much of its magnificence to the noble vista which he opened by the Rue Castiglione to the triumphal column in the Place Ven-

dome ; the opposite view of the Chamber of Deputies, with its noble portico ; and the unfinished, but grand triumphal arch of Neuilly.

*A Scene in Paris.**Notre Dame.**The Exchange at Paris.*

A great number of elegant fountains adorn and purify the streets and markets. An immense fountain, in the shape of an elephant, in bronze, was begun by Napoleon on the spot occupied by the Bastille, but still remains unfinished.

The church of Notre Dame is a noble gothic edifice, 390 feet in length, with towers 204 feet high. It was 200 years in building, and was finished about the year 1200. It stands in the most ancient part of Paris, on the island in the Seine, called *la cité*. The church of St. Genevieve is now called the Pantheon, and is designed as a mausoleum for the ashes of celebrated men; it is a magnificent edifice in the modern style. The Hospital of Invalids is an immense building, designed for the residence of disabled soldiers. It is surmounted by a splendid gilt dome, which alone was 30 years in building, and is esteemed one of the masterpieces of French architecture.

The Jardin des Plantes is the noblest collection of interesting objects in Natural History, that has ever been formed. The public buildings in Paris, which deserve notice for their size and magnificence, are too numerous even to be mentioned here. In this respect, Paris is far above London. The Tuileries form an extensive and somewhat irregular pile, nearly one fifth of a mile in front, which has a noble effect. The Louvre is a model of symmetry, and is thought to make the nearest approach to perfection of any modern building. It contains 1,000 paintings, 1,500 statues, and 20,000 drawings. Here the whole population of Paris are admitted on Sundays, and it is thought, that the refined and polished manners of the Parisians are in a great degree owing to the familiar contemplation of these masterpieces of art. The Palace of the Luxembourg is chaste and elegant, but less striking than the Tuileries. The Palais Royal, in the busiest part of the city, is an immense quadrangle, surrounding an open garden or court, and constitutes a grand assemblage of shops, galleries, coffee-houses, and saloons, in a style of magnificence that astonishes a stranger. In these brilliant purlieus, the visiter will find, combined with the utmost elegance and taste, whatever man has been able to invent for the satisfaction of his luxury and pleasure. Here fashion has established her empire, and here she reigns over Paris, France, and the whole civilized world. Here are crowded together, merchandise of every kind,

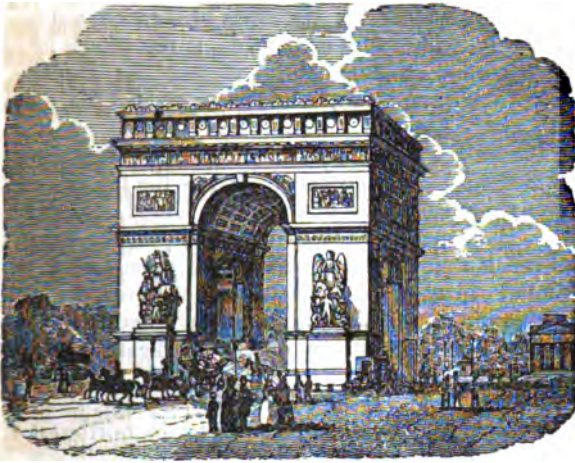
the richest stuffs, the most precious trinkets, and every production of the arts. A general intoxication of pleasure may be said to prevail in this enclosure of luxuries, which is the constant resort of strangers always flocking to Paris. It is the centre of trade, the focus of wealth, business, idleness, festivity, literature, the arts, and of every species of industry, talent, and dissipation. The world has nothing elsewhere like it. The Bourse, or Exchange, is the handsomest building of the kind in Europe.

The libraries of Paris are very large, and formed upon the most liberal principles. Most of them are public, and accessible at all times to the rich and poor. The Royal Library contains above 500,000 volumes, besides 80,000 manuscripts, 100,000 medals, many hundreds of thousands of tracts, and 1,000,000 engravings. This library is crowded constantly by persons of all classes, in pursuit of knowledge. The other libraries have from 150,000 volumes downward.

There are about 30 theatres, large and small, in Paris. All the theatres in France pay a tenth part of their receipts to the poor. The houses in the older parts of Paris are very high. The streets are generally without side-walks; and some are paved with flat stones. All those parts without the Boulevards are called *fauxbourgs*. The gates of the city are denominated *barriers*, and here passengers must exhibit their passports, and merchandise pay a duty on entering the city.*

The most famous of the cemeteries, is that called Pere La Chaise (Father La Chaise), from the name of a priest, to whom the ground formerly belonged. It is prettily laid out, with shaded walks, adorned with flowers, and contains many handsome monuments.

The manufactures of Paris are various and extensive. The book trade and printing business exceed those of any other city in the world. The shawls, clocks, and watches, jewelry, gloves, furniture, and innumerable articles of luxury, fashion, ornament, and use, which are made here, occupy great numbers of the inhabitants. The catacombs



View of one of the Entrances to Paris.



Pere La Chaise.

* Paris exports, annually, objects of industry to the amount of 47,000,000 francs; of which, 14,000,000 are in shawls, and 6,000,000 in jewelry. There are, in the city, 320 watchmakers, who employ 2,056 workmen, and manufacture annually 80,000 gold watches, 15,000 silver watches, and 15,000 clocks, valued at 19,765,000 francs. There are 10,053 vehicles for the interior service of Paris, and 733 for the exterior; 500 water carriages, drawn by horses, and 1,300 drawn by men; 484 diligences; 249 small stages, and 500 cabriolets for the exterior; making 13,919 vehicles of every description. Among the strangers who visit the city, the English are the most numerous; in 1821, there were 20,184 English at Paris.

An eighth part of the paving of Paris is renewed annually. The streets, bridges, and squares are lighted by 1563 lanterns, which consume annually 608,397 pounds

of oil. The ordinary watering and cleaning of the streets is done by the inhabitants. In an average year, there are consumed, in Paris, 71,800,000 bottles of wine; 659,154 gallons of cider; 2,034,263 gallons of beer; 359,298 gallons of vinegar; 71,750 bullocks; 8,500 cows; 76,500 calves; 339,650 sheep; 70,500 hogs; 931,000 pigeons; 174,000 ducks; 1,289,000 chickens; 251,000 capons; 549,000 turkeys; 328,000 geese; 131,000 partridges; 177,000 rabbits; 29,000 hares; butter and eggs to the value of 10,348,800 francs; oysters, 599,400 francs; sea-fish, 3,417,600 francs; fresh-water fish, 333,400 francs. There are 3,500 coffee houses in Paris. The receipts of the theatres, balls, gardens, and public spectacles, amount annually to 6,500,000 francs. Thus the public amusements of the capital pay annually to the poor a sum equal to 120,250 dollars of American money.

of Paris are a remarkable series of subterranean galleries and caverns, extending several miles under the city. They were originally quarries, from which the materials for the edifices of the city were obtained; but about 50 years ago, the bones of ten generations were collected, from the different churches and burying-grounds of the capital, into these caverns, and the remains of from 4 to 6 millions of human beings are here arranged along the walls. In this subterranean city of the dead, you find mausoleums, altars, candelabras, &c., constructed of bones, with festoons of skulls and thigh-bones, interspersed with numerous inscriptions.

There are several places of historical interest in the neighborhood of Paris, which deserve notice. *St. Denis*, with 9,680 inhabitants, contains a celebrated abbey, in the church of which have been deposited the remains of the long line of French kings. *Vincennes*, with 5,000 inhabitants, a village of great antiquity, was long the residence of the kings of France, and contains a castle, surrounded by a fine park. *Neuilly*, with 3,000 inhabitants, is remarkable for its magnificent bridge over the Seine, its superb gardens, and delightful views. At *Boulogne*, with 5,400 inhabitants, near the wood or park of the same name, is a favorite promenade, called Longchamps.

Saint Cloud, in a picturesque situation on the Seine, is celebrated for its beautiful prospects, and the splendid gardens and park attached to the royal palace here. It was the favorite residence of Napoleon, whence the imperial court was called the court of St. Cloud. *Sevres* is famous for its beautiful porcelain. *Versailles*, about ten miles west of Paris, was, for upwards of a hundred years, the residence of the French court; and its sumptuous palace, park, and gardens, display all the splendors of art. Statues, temples, pavilions, sheets of water, cascades, and fountains, enchant the eye in every direction, and the splendid saloons are decorated with paintings, gilded and marble columns, &c. There are also several other remarkable edifices at Versailles, which now contains 28,500 inhabitants.



Palace of Fontainebleau.

St. Germain-en-Laye, about the same distance to the northwest of Paris, with 10,600 inhabitants, is pleasantly situated on the borders of the forest of Laye, the largest in France. Here is an ancient palace, or hunting castle, of the French kings. *Rambouillet*, 25 miles southwest of Paris, has a royal chateau, with a fine park, and a large forest attached to it. Here, also, is the royal farm, the dairy of which is entirely of white marble. Population, 3,150. At *Fontainebleau*, 30 miles south of Paris, stands a royal chateau, in a picturesque situation, in the centre of the forest of Fontainebleau. It has

been the scene of many important events. Population, 8,000.

Lyons, the second city of France, is delightfully situated in the midst of a thickly peopled district, at the confluence of the Saone and the Rhone. Twenty quays, some of which are adorned with handsome buildings, and planted with trees, line the banks of the rivers, and 10 bridges pass them in different directions. Among the 56 public places, or squares, that of Bellecour is one of the most magnificent in Europe; and the hôtel de ville, or city hall, has no superior, except that of Amsterdam. The commerce and manufactures of Lyons are extensive, and numerous and extensive docks and warehouses facilitate the commercial operations of the city. The most important article of manufacture is silk, which is raised in the vicinity, and imported in great quantities from Italy and other parts of France. The silks of Lyons are celebrated for their beauty and firmness. The manufacture of silk and cotton, and silk and woolen stuffs, paper hangings, artificial flowers, jewelry, &c., also employs many laborers. Population of the city, 200,700. There are here numerous hospitals and churches, several learned societies, and institutions for education, among which is a royal college, a fine public library of 90,000 volumes, &c.

St. Etienne, an active and flourishing manufacturing town, is connected with Lyons by a rail-

road, which extends from Lyons to Andrezieux on the Loire, 35 miles. The manufactures of St. Etienne, and its vicinity, are arms, jewelry, silk and cotton stuffs, &c. Population of the town and adjacent country, 50,000. To the southeast of Lyons, is *Grenoble*, upon the Isere, with 25,000 inhabitants, a strongly fortified place, with extensive manufactures of gloves and liqueurs. It has several important literary establishments, and is interesting in history, as the former capital of Dauphiny; in its neighborhood is a celebrated Carthusian monastery, called the Great Chartreuse.

Marseilles, the principal commercial city of France, is delightfully situated upon the Lion's gulf, with a spacious harbor. The new city is handsomely built, with wide, straight streets; and many fine promenades and public squares. The old part of the city consists of narrow streets and mean houses. The lazaretto, or quarantine hospital, is esteemed the finest in Europe; and the ancient cathedral, the hôtel de ville, the numerous hospitals, the 21 churches, &c., are among the ornaments of the city. The extensive quays are crowded with merchants and mariners from all parts of the world. The manufactures are also extensive. *Marseilles* is one of the most ancient cities of France, having been founded by a Grecian colony 2,400 years ago. Population, 160,300.

The other principal cities in this quarter, are *Toulon*, with 38,500 inhabitants, remarkable for its commerce, its excellent port, arsenals, docks, &c.; it is strongly fortified, and is the chief station of the French navy in the south of France; *Aix*, with 22,600 inhabitants, lying to the north of *Marseilles*, once the residence of the Counts of Provence, whose court was the most refined and splendid in Europe, and still distinguished for its literary institutions; *Arles*, with 20,000 inhabitants, interesting for its antiquities, and once the capital of an independent kingdom; and *Avignon*, with 30,000 inhabitants, for some time the residence of the Popes, and now a flourishing manufacturing town; near *Avignon*, is the little village of *Vaucluse*, celebrated by the muse of Petrarch.

To the west of *Marseilles*, is *Montpellier*, with 36,000 inhabitants, a flourishing commercial and manufacturing town, celebrated for the beauty of its situation, the elegance of some of its public edifices, its delightful public walk, esteemed the finest in Europe, the salubrity of its air, and its famous university. *Nîmes*, to the north of *Montpellier*, is a place of great antiquity, and still contains many relics of its ancient magnificence; it has 41,300 inhabitants, who are engaged in extensive manufacturing and commercial operations.

Bordeaux, or *Bourdeaux*, is situated upon the Garonne, 60 miles from its mouth. The river is navigable to this place by the largest ships, and forms, at *Bordeaux*, a spacious harbor, which is connected, by the canal of Languedoc, with the Mediterranean. *Bordeaux* is one of the handsomest, and most flourishing and commercial cities of France, and contains 120,000 inhabitants. In the new part of the city, the streets are spacious and elegant, and there are many delightful promenades, beautiful squares, and splendid edifices. The manufactures are extensive, comprising sugar refineries, distilleries, vinegar works, &c. Ship-building and the whale fishery are also carried on largely, and *Bordeaux* is the great wine and brandy mart of the south and west of France. Its literary institutions are also numerous and important, and its public library contains 110,000 volumes.

Bayonne, on the Adour, a pretty town, with 15,000 inhabitants, a good harbor, and an active commerce, — and *Rochelle*, a commercial and strongly fortified town, with about the same number of inhabitants, are both places of historical interest.

Nantes, on the Loire, 25 miles from its mouth, is one of the largest, richest, and most flourishing commercial cities of France, with a population of 87,200 souls. Its manufactures are extensive and increasing, and the fisheries are actively prosecuted by the inhabitants. *Nantes* is very pleasantly situated, and handsomely built, and contains many elegant squares and public edifices. It is famous in history, from its giving name to the edict issued here, in 1598, by Henry the Fourth, granting to the Huguenots, or French Protestants, the free exercise of their religion; this edict was revoked by Louis the Fourteenth, nearly a century later. Above *Nantes*, on the Loire, are *Angiers*, with 32,750 inhabitants; *Tours*, with 23,250 inhabitants; and *Orleans*, with 40,000 inhabitants, cities of some note in history, and which, at present, contain some literary institutions, and have considerable manufactures.

Rouen, upon the Seine, 70 miles from its mouth, is the centre of a populous manufacturing district, and has, itself, extensive manufactures and a brisk trade. It was formerly the capital of Normandy, and is meanly built, although it contains some remarkable edifices. The neighborhood is filled with flourishing manufacturing towns and villages. Principal articles of manufacture, cotton, linen, and woolen goods. Population of *Rouen*, 100,000.

At the mouth of the Seine stands *Havre*, with 24,000 inhabitants, which may be considered the port of Paris and Rouen. It has constant communication with all parts of the world, by means of regular packet ships, and the Seine is navigated by numerous steam vessels, some of which run up to Paris.

Lisle, or *Lille*, situated in a rich and highly cultivated plain, upon the river Deule, is one of the best built cities in France. Its neat and spacious streets, its formidable fortifications, its fine citadel, the master-piece of the celebrated French engineer, Vauban, its canals, and its numerous public edifices, give it an imposing appearance. Its extensive trade and manufactures rank it among the most flourishing French cities. Population, 80,000; the immediate neighborhood, to the distance of 30 miles, is the most populous district in France.

Upon the Channel to the north are *Dunkirk*, a place of historical interest, with a good harbor and a flourishing commerce, 25,000 inhabitants; *Calais*, 10,500 inhabitants, remarkable as the nearest point of approach between England and France, being but two and a half hours' sail from Dover; and *Boulogne*, with 21,000 inhabitants, a strongly fortified town, and celebrated bathing-place.

Arras, with 23,400 inhabitants, a pretty and flourishing town, noted for its citadel; *Cambray*, 17,700 inhabitants, upon the Scheldt, the see of a bishopric once occupied by the illustrious Fenelon; and *Amiens*, 45,000 inhabitants, once the capital of Picardy, are among the most remarkable places in this quarter of the kingdom.

Caen, upon the Orne, with 40,000 inhabitants, distinguished for the number of its learned institutions, and its extensive commerce; *Cherbourg*, 18,500, one of the principal stations of the French Navy, and remarkable for its vast docks, and its magnificent breakwater, extending upwards of two miles into the sea; *Rennes*, upon the Vilaine, formerly the capital of Brittany, with flourishing manufactures, and a population of 30,000 souls, communicating with the Channel at St. Malo, by a canal, and with the Bay of Biscay by the navigable river upon which it stands; and *Brest*, upon the western coast of France, the principal French naval station, with a fine harbor, splendid quays, and extensive docks, hewn out of the rock, are the chief places of interest in northern France, not previously mentioned.

Toulouse is pleasantly situated upon the Garonne, at the termination of the Languedoc Canal. It is an ancient town, and was once the capital of the Visigothic kingdom, and afterwards of Languedoc. Its manufactures are flourishing, and it contains several important literary establishments. Population, 60,000. To the north are *Montauban*, 25,000 inhabitants, and *Limoges*, 27,000, and, to the northeast, *Clermont*, 28,250, places important for their population, manufactures, and literary institutions.

There are several cities in the east of France, which deserve notice. *Strasbourg*, with 50,000 inhabitants, is a handsomely built and strongly fortified city, pleasantly situated in a fertile plain upon the Ill, near its confluence with the Rhine. It was once the capital of Alsace, and the language and customs are chiefly German. Its trade and commerce are extensive, and its literary establishments numerous and respectable. A bridge of boats across the Rhine, connects it with the German territory. The Cathedral or Minster of Strasbourg is one of the finest specimens of Gothic architecture in Europe; the tower, in particular, is a master-piece of architecture, and is remarkable for its height, which is 474 feet. Its clock is also a curious piece of mechanism, indicating the motions of the planets, as well as the hours of the day.

Besançon, formerly capital of Franche Comté, is one of the best built and oldest cities of France. Its manufactures, particularly of clocks and watches, are extensive, and it contains several literary institutions of note. The canal of Monsieur passes by Besançon, and renders it the depot of the trade between the towns of Switzerland and the north of France, and those of the south. Population, 29,200.

Dijon, formerly the capital of Burgundy, is pleasantly situated in a fertile plain, and is handsomely built, with spacious streets and elegant houses. Population, 25,550.

Troyes, with 23,750 inhabitants, stands upon the Seine; its trade and manufactures are extensive. To the north is *Rheims*, distinguished for its noble cathedral, in which the French kings have hitherto been consecrated, until the late revolution; in this ceremony, a vial was used, called the sacred ampulla, said to have been brought down from heaven by a dove. The wine cellars of Rheims, excavated in limestone rock, and in which are preserved the fine wines of the district, destined for exportation, are also a curiosity. Population, 36,000.

Metz, with 44,400 inhabitants, upon the Moselle, and *Nancy*, with 30,000, upon the Meurthe, are important towns in the ancient province of Lorraine. The former is remarkable for its

strong military works, and its manufactures are considerable. The latter is distinguished for its splendid buildings and its beautiful promenades.

4. *Agriculture.* Two-thirds of the population of France are agricultural, and a much greater proportion of the cultivators are proprietors than in most other European countries. The agricultural products of the northern part of the country are corn, pulse, and potatoes; of the southern, corn, grapes, mulberries, and olives. Beside the common grains of Europe, wheat, rye, oats, and barley, maize is also extensively cultivated. The horses and cows are



Rye.



Spring Barley.



Winter Barley.



Common Wheat.



Oats.



Sainfoin.

fed chiefly on clover, lucern, sainfoin, and other artificial grasses, of which no greater quantity is raised than is absolutely necessary. The rotation of crops is little attended to, and fallows still hold a place in French husbandry, which is therefore proportionately less productive than the English. The French are, however, the best wine-makers in the world; the principal varieties of the French wines are those of Champagne and Burgundy; the Moselle and Rhenish wines, so called from the rivers upon whose banks they are produced; the hermitage of Dauphiny; and the clarets of the neighborhood of Bordeaux.

Table of Cultivated Land, and Agricultural Products.

Arable land in France,	56,810,000 acres.	Annual product of Buckwheat,	2,900,000 quarters.
Annual produce of Wheat,	20,800,000 quarters.	" " Oats,	11,000,000 "
" " Rye,	12,700,000 "	" " Potatoes,	6,900,000 "
" " Maslin or mixed		Land occupied by vines,	5,000,000 acres.
corn,	10,400,000 "	Produce of vineyards,	924,000,000 gallons
" " Maize,	2,160,000 "		

N. B. A quarter is eight bushel.

5. *Commerce.* Much of the foreign commerce of France is transacted by foreign vessels, and the amount of shipping is much less than that of the United States. The annual value of imports is about 100,000,000 dollars, consisting chiefly of raw materials for manufactures, and of natural productions for food; the value of the exports is a little less, consisting principally of manufactured articles, wines, brandies, &c. The coasting trade and internal commerce between the different regions of this rich country, are extensive.

6 *Manufactures.* The products of French manufacturing industry are exceedingly various

and numerous, and they combine great excellence of quality with great elegance of taste. The annual value is about 300 million dollars. The porcelain of Sevres, Paris, &c., the silks of Lyons, Nîmes, Avignon, &c.; the woollens of Elbeuf, Louviers, Rheims, Amiens, &c.; the cotton stuffs, muslins, gauzes, &c., of Rouen, St. Quentin, Tarare, Paris, Cambrai, Valenciennes, &c.; the lace of Alençon, Caen, Bayeux, &c.; the shawls, jewelry, clocks, and watches, musical and scientific instruments, of Paris; mirrors, tapestry, chemical products, paper, paper-hangings, &c., are among the principal articles. The French excel particularly in dyeing, and their goods are distinguished for firmness, delicacy, and brilliancy of color.*

Total Amount of Products of French Industry.

Products of mineral kingdom	\$ 20,000,000	Flax and Hemp	\$ 10,000,000
Corn and other grain	380,000,000	Domestic Animals	130,000,000
Wine	160,000,000	Manufactures	300,000,000
Meadows	140,000,000		
Fruits, kitchen vegetables, &c.	52,000,000	Total	\$ 1,220,000,000
Forests	25,000,000		

7. *Colonies.* The foreign possession of the French are now inconsiderable. They are in America, the isles of St. Pierre and Miquelon; Martinique; Guadeloupe, with its dependencies; a part of St. Martin and Cayenne; in Africa, the Kingdom of Algiers; the colony of Senegal; the Isle of Goree, and some factories; In the Indian Ocean, the Isle of Bourbon, and that of St. Mary near Madagascar; and in Asia, Pondicherry, Karikal, Yanaon, Chandernagore, Mahe, and some factories.

8. *Revenue and Expenditure.* The revenue is derived from direct and indirect taxes, sales of wood from the public forests, customs, &c., but for several years past, it has fallen a good deal short of the expenditure.

Budget for 1838.

REVENUE.		EXPENDITURE.	
Land Tax	\$52,500,000	Justice and Public Worship	\$13,000,000
Poll Tax, assessed Taxes	17,000,000	Foreign Affairs	1,500,000
Stamps	41,200,000	Navy	12,600,000
Patents	7,000,000	Public Instruction	3,800,000
Sale of public domains, wood, &c.	8,000,000	Finance (sinking fund, interest of debt, charge of collecting revenue)	109,800,000
Customs and Excise	57,000,000	Army	44,600,000
Works carried on by government	26,000,000	Commerce and Public Works	10,200,000
Miscellaneous	2,600,000	Interior	15,000,000
Total	211,300,000	Chamber of Deputies	136,000
		Total	212,636,000

9. *National Debt.* This amounted in 1829 to 821 million dollars, but was increased by the Revolution of 1830, and is now about 1,000 millions. In 1797, it was 4,440,000,000 dollars. Two thirds of this sum were annihilated by a decree of the revolutionary government, and subsequently two thirds of the remainder. The public funds consist of bank shares and the *tiers consolidé*, a 5 per cent. stock.

* Rouen is the Manchester of France, and its proximity to Havre de Grace, the great American port, gives it the same advantage in point of situation, that Manchester derives from the neighborhood of Liverpool. The cotton trade of Rouen supports from 55 to 60,000 persons. The corduroy and velveteen of Troyes are well suited for laborers' clothing. Caen produces cambric muslins, equal to those of Switzerland. The gingham from the Upper Rhine are stout and well dyed; and the printed muslins of Versailles rival those of England. The delicacy and perfection of the French cambrics have long been unrivaled. The French laces are made both of silk and thread. The point lace of Alençon and Argentan has long enjoyed a great name. The parchment made in France is esteemed the best in Europe. In clocks and watches the Parisians are rivaling the Swiss. The manufacture of surgical and mathematical instruments, and of all sorts of expensive and tasteful toys, are carried to high perfection. The porcelain of Sevres has a great reputation. The glass manufacture of St. Gobin retains its high preëmi-

nence for large and beautiful mirrors. The crystal manufactories in and about Paris are very numerous. French furniture is cheaper than English. Dyeing is carried on largely in the neighborhood of the several cloth manufactories. The waters of the Saone are excellent for scouring, and possess a soapy quality. Those of the Rhone are pure and equally fitted for dyeing. The superior excellence of the French cloth as regards color, arises in a great measure from the great purity of the waters used in dyeing. The raw cotton spun in France in 1826 amounted to 83,993,210 pounds. The wool to 102,300,000 pounds. There were 3,000 cashmere shawls, and 41,000 woolen shawls exported the same year. The value of the silk annually worked up is equal to 26,640,000 dollars of American money; more than one half the raw material is of native production. The China silkworm has long been naturalized in France, and the French white crapes now rival those of the East, so long inimitable in brilliancy and purity. Red and blue embroidered stuffs have recently been largely exported to Persia and Turkey

10. Bank. The Bank of France was established in its present form in 1801, with a capital of 30,000,000 francs. Its dividend has always exceeded 5 per cent. Its notes are not a legal tender, and nearly all its business is transacted in gold and silver. It is strictly a public institution, and the chief officer is appointed by the government. It is a bank of discount, deposit, and circulation, but none of its notes are lower than 500 francs. Private bankers in France do not issue notes.

11. Army and Navy.* In 1838, the Budget exhibited the number of troops at 300,000 men. According to the same document, the French navy consists of 49 ships of the line; 62 frigates; 31 corvettes; 49 brigs; and above 130 smaller vessels, including 21 steamboats. There is a royal marine college at Angoulême, a marine school at Brest, and several schools of navigation.

12. Population. According to the official estimates for 1837, the total population of France, including Corsica, was 33,600,000. Two thirds of this number are engaged in agriculture, and about half the remaining third are mechanics. The French empire in 1812, previous to the Russian campaign, comprised a population of 43,000,000. France has entirely recovered from the losses occasioned by the wars of the Revolution and the Empire, and was never so populous as at present. It contained by the census of 1846, 35,400,000.

13. Inhabitants, Classes, &c. The principal part of the inhabitants are descended from the Celts or Gauls, the Romans, and the Franks, but chiefly from the latter. The Bretons who are mostly in Lower Brittany, are the descendants of the people who were driven from England by the Anglo Saxons, in the fifth century. After a lapse of so many centuries, they are still distinguished from the French in dress, customs, and language. The German inhabitants of France are in part Walloons, and live for the most part in Alsace, and a part of Lorraine. The Basques are descended from the ancient Cantabrians, and dwell at the foot of the Pyrenees. The remainder of the inhabitants are Jews; Gypsies, who lead a settled life on the Rhine and Moselle, and Savoyards who wander over the country. The French are a well formed and active people. In complexion they are not so clear as the English, and they are less robust in frame; though there are many who would be considered corpulent even in England. In the southern provinces, the skin is darker, and the eye more restless and brilliant.

Hereditary peerage in France is abolished. The titles of nobility are princes, dukes, marquises, counts, viscounts, and barons. There were formerly no less than 36,500 noble families, though of these only 4,120 were of the ancient nobility. The most ancient order is that of St. Michael, founded by Louis the Eleventh, and conferred on distinguished artists and savans. The order of the Holy Ghost, is like the last, limited to 100 chevaliers, and it includes the royal family and the princes of the blood. Louis the Fourteenth established the Order of St. Louis, as a reward for military services. Under the consulate, the Legion d'Honneur was instituted, and the members were both military and civil. At the Restoration it was reorganized. It has 80 grand crosses, 160 grand officers, 400 commanders, 2,000 officers, and an unlimited number of chevaliers. There are three schools for the education of 900 of the daughters of the members.

14. Dress. France has long been looked up to as the standard from which there is no appeal, in all matters of taste or fashion, whether as regards dress or cookery; and it must be owned, that the French have earned their reputation in this respect by the unremitting attention, which they have bestowed upon these subjects. From the highest to the lowest individual, from the duchess to the grisette, there is a universal, and, it would seem, an intuitive *esprit de coquetterie*, which in no way displays itself more forcibly than in the frequent and tasteful arrangement of the toilet. The "*Courrier des Dames*," and the "*Journal des Modes*," have carried their laws through every part of the civilized world. In all the great cities, whether of Europe or America, the dress of the upper classes is an intended imitation,

* The mountain party originated the military conscription. Carnot, the revolutionary minister at war, organized in 1794 no less than 14 armies, amounting to 1,400,000 men. The decree of conscription was declared a permanent law of the republic, and afterwards of the empire, and this engine whether wielded by a Carnot or a Napoleon, like the lever of Archimedes, for a time moved and overturned the balance of the political world. The annual conscription after the incorporation of Belgium and the Italian States with the empire, averaged from 1806 to 1810, 380,000 men. By the official report

of January, 1809, the French army consisted of 900,000 infantry, and 100,000 cavalry, without including auxiliaries. It was afterwards still more augmented. In 1812 and 1813, France called out by extraordinary conscriptions in her own territories, 1,280,000 men; and from other countries 700,000, making a total of 1,980,000. In the beginning of 1812, when Napoleon had reached the pinnacle of his greatness, he had a standing army of 1,200,000 men, a force greater than Rome ever possessed in the zenith of her power.

though often a caricature, of Parisian costume ; and now, that these arbiters of fashion have carried their arms into the African deserts, it is probable, that the Arab maidens, laying aside the white veil with its tinkling bells, will begin to sigh for *blouses*, and cashmeres, and Chantilly lace, and *chapeaux de gaze aréoplane*. It is certain, that an innovation has already taken place in the dress of the Algerine fair, since the entry of the French heroes into their capital, and that upwards of 50 ladies were persuaded to attend a ball given by their conquerors, with the novel incumbrance of shoes and stockings.

Every event of importance, sad or glorious, a war, a revolution, or the downfall of a dynasty, is immortalized in France by a *paté* or a *riband*. When the Opera House in the Palais Royal was burnt down, in 1781, the fire of which lasted for more than a week, and in which many persons perished, the Parisian *elegantes* displayed dresses of a flame color, entitled "*couleur feu de l'Opera !*" The modistes find it advantageous to give a singular name to a color. "*Couleur giraffe*" had a meaning in it ; but the exact "*couleur d'araignée méditant une crime*," which was for some weeks the rage in Paris, could only have been imagined by the fantastic brain of a French modiste. After the fall of Robespierre, the surviving victims of his tyranny, being released from their dungeons, resolved to celebrate the tyrant's death after a truly French fashion, viz. by giving a ball. No one could be admitted who could not prove that he or she had lost a friend or relative in the late massacres. It was entitled the "*bal des victimes*." The rooms were hung with red drapery, and the dresses were *couleur de sang*. History does not record, that any steps faltered among those who partook of this strange festivity ; that the *pas de bourrées* were performed with less grace than usual, or the *pas de vals* with less vivacity. It is related, that two ladies, who had been united by the sentimental bonds of female friendship, each of whom had believed the other to be among the victims of the guillotine, and who had both obtained their tickets of admission upon this unfounded report, met in the ball-room, to their mutual surprise. They rushed into each other's arms ; when the director observed, that they had lost their right to remain, and they were requested to withdraw. Their joy was suddenly checked. "It is charming to recover one's friend," said one of the ladies, sighing deeply ; "but — it is sad to lose so excellent a ball."

Fashion, in France, is a despot whose laws are blindly obeyed. For each season there is a costume, and a deviation from the mode is looked upon as the violation of a moral duty. Indeed, a sin against etiquette is more severely visited than a sin against propriety. If the offender is a foreigner, a civil contempt is expressed by that ineffable shrug, which can only be executed by a French shoulder. Times are by no means altered since the days of Madame de Genlis, when a devoted lover broke off his engagement with a lady, from making the discovery, that her shawl, which he had firmly and fondly believed to be a real cashmere, was a *peau de lapin*. When the peace, that followed the restoration of the Bourbons, permitted the English to visit Paris, the English ladies, in their short waists and poke bonnets, excited as much consternation as the appearance of a tribe of South Sea Islanders, in their skins, would have caused to a less sensitive nation. *Les Anglaises pour rire* was an amusing caricature of English dress and manners, as they acted upon the risible nerves of the French nation at that period. Upon one occasion, when crowds had assembled according to custom, to see Louis the Eighteenth feed in public, a titter suddenly arose among the well-bred mob, gradually increasing, and terminating in a burst of laughter, such as had never before invaded the precincts of the royal ear. The cause was hastily inquired into, and a sufficient apology for mirth was discovered in the unexpected appearance of an English poke bonnet.

The ladies in the country, and in the provincial towns, follow the Paris fashions, and are more or less well-dressed, according to their facilities of communication with the capital. During the Bonaparte dynasty, Madame le Roi, the couturiere of the Empress Maria Louisa, presided over the empire of taste. But long waists were restored with the Bourbons, and Napoleon and Madame le Roi fell together. Victorine became the legitimate sempstress, and long reigned without a rival. The morning dishabille of a French lady is the perfection of coquetry or of slovenliness, according to her intention of being *visible* or otherwise. If the former, her *peignoir*, or white muslin dressing-gown, is arranged with scrupulous neatness. Her morning cap is simple, but becoming ; and, down to the points of her red slippers, the nicest eye can discover no fault. If the reverse, there is more ease than elegance in her toilet, and the hour of promenade in the Tuileries finds her exhibiting a personification of the grub transformed into a butterfly. Great judgment is displayed by a Parisian lady in her choice of a seat in these gardens, where the sun shall throw a becoming shade over her *couleur*

de rose hat. The same regard for her complexion induces her to fit up her boudoir with a suitable color, according as she is a blonde or a brunette. One superlative merit must be granted to the French ladies; their toilet is the perfection of simplicity. The dress of an English or American lady would furnish materials for that of half a dozen moderate French women.

Thus far we have been speaking of female dress. The French gentlemen, instead of attempting to give the law in dress, rather affect the English fashions. The imitation, however, runs into caricature, and while the English gentlemen are the best dressed men in the world, the French are almost the worst. But it is not among the higher classes alone, that dress is considered a matter of importance in France. Every station has its peculiar costume. The wife of a shopkeeper, or a milliner's girl, wears a dress equally distinct from that of a peasant or of a lady. It generally consists of a chintz or stuff gown, a colored *fichu*, black-silk apron, and a cap of a fixed form, ornamented with lace and ribands. A bonnet is considered as the exclusive privilege of a lady, and no severity of weather would induce a Frenchwoman to depart from this rule. The peasants in the different departments of France have a costume peculiar to themselves. The most remarkable variety is in that of the women in Upper Normandy, where the *cauchoise* cap is worn. It is made of starched muslin, and is from half a yard to a yard in height. It stands up nearly perpendicularly, and is ornamented with long lace lappets, called *coquilles*. The hair is braided in front, and gathered up in a mass behind. Upon a young and handsome woman, these high caps have a pretty effect. They are called *Cauchoises*, *Marottes*, and *Pierrots*, according to the height and form. The rest of the dress consists of a bright scarlet petticoat, extremely short, a black jacket, called an *Apollon*, and a colored apron; long gold ear-rings, and gold hearts and crosses, fastened either to a black velvet riband or gold chain. In the town of Bolbec, the greatest luxury is frequently displayed by the peasant women on Sundays and fête days; not only in the lace and ornaments of the *cauchoise* cap, but in their gold trinkets, which are frequently of no mean value. In Lower Normandy, the peasants' dress is nearly the same, with the exception of the cap, which is low and flat in the crown.

In the other departments, there are different varieties of costume; and in some places, such as the neighborhood of Lyons, the peasant women wear a flat, round, black hat, either of cloth or velvet, and not unlike those worn in some parts of Switzerland. The men are dressed pretty much as the laboring classes in England, or the United States. The village dandy is shaved and curled on Sundays and holidays, and at other times, usually wears a *blouse* of blue stuff, like a wagoner's frock, buckled in at the waist, and embroidered in white at the wrists and collar.

15. *Language*. Two dialects grew out of the corruption of Latin; which language was introduced by the Roman conquest; the Southern one was called the *Langue d'Oc*, and the Northern, the *Langue d'Oïl*. The former, though much changed, is still the language of Provence, Languedoc, Catalonia, Valencia, Majorca, Minorca, and Sardinia. The literature of this language, is principally in the songs of the Troubadours, which were chiefly confined to the two great themes of chivalry; love, and war. The modern French, is derived from the *Langue d'Oïl*, and it is so well adapted to elegance and social life, that it has long been the language of courts, diplomacy, and the higher classes in many countries. A knowledge of it will carry a traveler over all civilized Europe. Besides the French, and the Provençal languages, the Bretons have their ancient British tongue, and the Germans have a corrupted German. The French, however, is general, in all the towns.

16. *Manner of Building*. In France, are some of the most magnificent edifices in the world, but these are principally in the cities, for a country life is seldom led by the wealthy. The great power of the kings, before the Revolution, and of Napoleon, since, enabled them to expend large sums in buildings, and other public monuments. The Revolution dispersed many of the rich landed proprietors, and the class of rich merchants and manufacturers reside chiefly in towns. There are, therefore, few elegant and commodious country houses in France, compared with the number in England. The old chateaux are gloomy and without taste; but the cottages are generally substantial and comfortable. They are thatched, and have windows and chimneys; the floors are of clay, beaten hard. In some parts, the houses are of mud, mixed with straw, which is cut into large square pieces, and hardened by drying. A house of this kind is sometimes of three stories, and has window frames of stone. The *pisé* is a common mode of building, and it is a process by which all kinds of earth, except sand, are compressed

and hardened. They are laid in mortar, like stones. The cottages have, invariably, a garden, and they are often ornamented with flowers.

17. *Food and Drink.* French cookery is known throughout the world, and is unrivaled in variety and delicacy. The expedients are innumerable for giving various flavors to the same material, and it frequently requires a scientific palate to discover the original nature of this material, under its various disguises. Monsieur Grimod de la Reynière observes, in his *Almanach des Gourmands*, "There are, in France, 685 ways of dressing an egg, without counting the new methods, which our *savans* imagine daily." At the Hotel of this gentleman, a weekly meeting used to be held, called the Jury Dégustateur, where new sauces and dishes were submitted for their inspection, and sentence pronounced upon their merits. A French *chef de cuisine*, is considered an indispensable appendage in the establishment of a person of fortune in Europe; and the salary given to *artistes*, frequently exceeds that bestowed upon the private tutor, or governess of the family. The names of Véry and Beauvilliers, the famous French Restaurateurs, are well known. The brother of Véry, who was also a proficient in the art of cookery, has a magnificent tomb in the Cimetière Montmartre, with a pompous inscription, concluding with these words: *Toute sa vie fut consacrée aux arts utiles.* The Café Hardy, in Paris, is famous for the excellence of its *déjeûners à la fourchette*, where *Cotelettes d'agneau au point d'asperge*, *Rognons sautés à la vin de champagne*, &c., may be had in perfection; with Beaune, Chamberlin, coffee, *parfait amour*, and all the necessary ingredients of a French breakfast.

The *patés de foie gras*, made chiefly at Toulouse and Strasburg, are a celebrated article of French cookery, and the cruel process by which the liver of the geese is enlarged, in order to produce this renowned dish, is thus described in the *Cours Gastronomique*: "The geese are plucked, placed before a slow fire, and fed for several days. Heat and captivity produce an enlargement of the liver, which renders them peculiarly excellent." A stranger, visiting Paris, finds some difficulty in seeing his way through a Restaurateur's *carte*, and in choosing between the *Patés de Périgord*, the *Thou mariné* (pickled tunny), a fish which is taken chiefly in the Gulf of Lions, the *Poulet à la Marengo*, *Langue de bœuf à la sauce piquante*, *patés à la financière*, *Anguilles à la Tartare*, *Tranches de Bœuf aux Tomates*, &c., &c., &c. If he is a John Bull, his national taste may be gratified by observing *Bistek aux pommes de terre*, *Bistek au mouton*, or mutton-chop, and *Rosbif à l'Anglaise*, among these varieties.

Frogs are esteemed a great delicacy. It is the legs and thighs only, of the animal, which are dressed, and the flavor is somewhat like that of boiled chicken. They are caught in the frog-ponds in the provinces, and sent up to Paris, where a dish of frogs is reckoned a rarity, and is expensive in proportion. A dish made entirely of the combs of the domestic cock, is also often served up. Tortoni's celebrated *café glacière*, on the Italian Boulevard, is well known to all who have visited Paris, as a fashionable lounge, where the topics of the day are discussed, over *grappes à la jardinière* and *ponche à la glace*. Notwithstanding the importance attached to cookery in France, there is no country in the world, where economy in that department is so well understood, and so universally practised.

The proportion of animal food consumed there, is much less than in England. The climate is milder in France; there is a variety of delicious fruits, and the wines are cheap and invigorating. Nothing can exceed the moderation and temperance of the laboring classes, in their food. Bread, fruit, eggs, milk, coffee, and vegetables, form their chief subsistence. Even among the better classes of farmers, animal food is scarcely ever in use, except on Sundays. Their dinner generally consists of omelets, or vegetable soup; pottage of onions, sorrel, or cabbages. It is not uncommon to see a family of French children assembled to dinner, round a dish of cherries, a loaf of bread, and a jug of water; or a woman, who has labored all day in the fields, dining upon an apple and a slice of bread. In the vintage provinces of France, where the climate is good, this temperance probably conduces to the health of the peasantry; but on the sea-coast, and marshy lands, where shaking fever and ague are very prevalent, these maladies are attributed by the physician, in a great degree, to the extreme poorness of the living.

The French are temperate; and with a cheerful temperament, with wines of great variety and excellence, and with the best of brandies and liquors, it is, still, seldom that a person is seen intoxicated. The brandies are unrivaled, and they are generally made wherever the wine is produced, though the best are at Nantz, Cognac, and Poitou. In the cities, beer is much used, and it is made in France of an excellent quality. Where the grape does not flourish,

ish cider is made, and there is none superior to that of Normandy. But France is the country of the grape; the product of the vineyards is delicious, and so abundant, that it supplies the demand of every less fortunate climate. The choicest wines, however, seldom pass the frontiers. The Champagne is a sparkling wine, and the best is not to be had for less than 5 or 6 francs a bottle; and this quality is in too much demand to be easily obtained. The Champagne river wines are generally red, and the mountain wines white. Those of Sillery are the most esteemed. Some of the choice Burgundy has been sold on the spot for 12 francs a bottle. The wines of Burgundy are both red and white; they are light and delicious, both in taste and perfume. The best are those raised in the departments of the Cote d'Or, Yonne, Saone, and Loire. Some of the red wines are the Chambertin, Romanee Conti, Richebourg, Romanee de St. Vivant, Tache, and St. George. The Mont Ratchet is a white wine of great celebrity. The Hermitage is a delicious red wine, produced on the Rhone.

Among the clarets, the La Fitte, the Latour, the Chateau Margaux, and Haut Brion, are sold for about 25 per cent. more than the common qualities; and even at Bordeaux, a bottle of the best of these is not to be had for less than 6 francs. These are the wines that are the most known and esteemed. The common *vin du pays*, or country wine, is of various qualities, and great quantities of it are consumed. The bare names of all the various wines of France, would hardly be contained in one of these pages. There are more than 250 different kinds. It is estimated, that about one twenty-sixth part of the territory is taken up in the cultivation of the vine. The price of vineyard land is very high. An arpent, or rather more than an English acre, which produces 800 bottles, is sometimes sold for 3,000 dollars. It is undoubtedly true, that the people of countries abounding in wines are far more temperate than those who cannot cultivate the grape. All the inventions of man to supply the want of wines are deleterious. It has been contended, that wine is everywhere an evil, yet we believe it may be safely stated, that, in the country of vineyards, it is seldom perverted to a curse. But, when it becomes an article of commerce, it is mixed, adulterated, and dashed with spirits, for better preservation. In the United States, a deleterious manufacture of wines is carried on to a great extent; and the use of this poisoned beverage is often the beginning of intemperance, which is the less suspected, because the enemy comes in the seeming guise of a friend.

18. *Diseases.* France is, in general, a salubrious country, and there are few diseases of a malignant type. The plague has been imported at Marseilles, where it made fearful ravages; but perhaps the most common of the local diseases is the fever and ague, which prevails in many places.

19. *Traveling.* There is less internal communication in France than in England. The method of posting extends over France, as well as Europe generally. The postmasters are appointed by the government, and furnish horses and carriages at a moment's warning. The postilion, by certain notes of his horn, gives notice to the post-houses; and when the traveler arrives, the horses are in readiness. This mode of traveling is expensive; and the rate is about 6 miles an hour. The diligence is a cheaper and a much slower method. The Diligence, the name of which promises little speed, is something between a wagon and a coach; its stops



Diligence.

are brief, and it goes from 4 to 6 miles an hour. There are usually 5 horses. One is within a heavy pair of shafts, another is harnessed without the shaft, at the side of the first, and three are leaders harnessed with ropes, abreast. The postilion is himself a character. He wears a little round hat, a green jacket, hair *en queue*, and jack-boots, that may well be called enormous. The nature of his equipments calls upon him for perpetual expedients, and he seems to be always joining a bridle, knotting a whip, or knocking on a saddle with a stone. He is off and on his horse's back many times in a stage, without stopping the vehicle. If a passenger calls, he dismounts, pops his head into the window, or runs by the side. The diligence has a conductor, who sleeps in the cabriolet, or forward apartment, and who sits at the head of the table with the passengers.

Some of the great roads of France are paved with stone, in a very superior manner. They were made in times when the peasantry were compelled to labor upon them, and many are shaded with rows of venerable trees. Yet they are far less agreeable to travel upon than the

English Macadamized roads. They seem almost deserted, and even the great avenues that lead from Paris have little of the traveling, that fills the roads for miles about London. The roads, generally, are in a wretched state, and the practicable ones not more than one-third of the extent of those of England. The cross roads are few and neglected. Where there is little internal circulation or traveling, the inns must be of a humble class, and those of France are distinguished for the general want of accommodations. In England, there is scarcely a village so remote, that an excellent inn is not supported by travelers, social parties, and civic feasts; but there are in France many considerable towns without an inn that would be deemed tolerable in an English village, and in the hamlets the traveler will fare still worse.

In the province of Landes,* in Gascony, there is a singular mode of traveling; as the district is very sandy, the shepherds and country people walk on stilts, by which they are elevated from 3 to 5 feet. This is a strange sight, when a man is so distant, that a spectator cannot see the stilts, as it seems that he is walking in the air. The people go in this way, 8 or 10 miles an hour, without much fatigue. The stilts are long poles, with a projection for the foot to rest on; they are strapped at the knee and at the ankle. By means of a pole, which they always carry, the walkers can let themselves down, take anything from the ground, and recover their standing position.

20. Character, Manners, &c. An American in France who has previously known the French only from descriptions by the English, is forcibly struck with its unfairness; the description in many points has not the resemblance even of a caricature. It seems to be the instinct of the English to hate the French, and this accounts sufficiently for the calumny. Goldsmith hit not only upon the English feeling, but he exemplified the national fairness, in making one of his characters say, "I hate the French, because they are slaves, and wear wooden shoes."

Julius Cesar described the ancestors of the



Walking on Stilts.

* The Landes, or desert in the south of France, is a tract of country between the mouths of the Adour and Gironde, along the seacoast, and, according to tradition, was once the bed of the sea itself, which flowed in as far as Dax. It is a bed of sand, flat, in the strictest sense of the word, and abounding with extensive pine woods. These woods afford turpentine, resin, and charcoal for trade, as well as a sort of candles, used by the peasantry, made of yarn dipped into the turpentine. The road is through the sand, unaltered by art, except where it is so loose and deep as to require the trunks of fir-trees to be laid across to give it firmness. The villages and hamlets stand on spots of fertile ground, scattered like islands among the sands. The appearance of a corn-field on each side of the road, fenced by green hedges, a clump of trees at a little distance, and the spire of a rustic church tapering from among them, gives notice of the approach to an inhabited spot.

The shepherds are mounted on stilts, and stride like storks along the flats. These stilts raise them from three to five feet; the foot rests on a surface adapted to its sole, carved out of the solid wood; a flat part clasped to the outside of the leg, and reaching to below the bend of the knee, is strapped round the calf and ankle. The foot is covered by a piece of raw sheep's hide. In these stilts they

move with perfect freedom and astonishing rapidity; and they have their balance so completely, that they run, jump, stoop, and even dance with ease and safety. We made them run races for a piece of money put on a stone on the ground, to which they pounced down with surprising quickness. They cannot stand quite still without the aid of a long staff, which they always carry in their hands. This guards them against any accidental trip, and when they wish to be at rest, forms a third leg, and keeps them steady. The habit of using the stilts is acquired early, and it appeared, that the smaller the boy was, the longer it was necessary to have his stilts. By means of these odd additions to the natural leg, the feet are kept out of the water, which lies deep, during winter, on the sands, and from the heated sand during the summer; in addition to which, the sphere of vision, over so perfect a flat, is materially increased by the elevation, and the shepherd can see his sheep much further on stilts, than he could on the ground. Once, when Napoleon was on a journey through the south of France, he traveled faster than his guard, which these shepherds observing, 200 of them assembling about his carriage, formed a guard of honor, and kept pace with it on their stilts, at the rate of 7 miles an hour for 2 hours together.

French as the most polished barbarians he had conquered ; and what the ancestors were among the barbarous, the descendants now are among the refined. Strabo describes the ancient inhabitants as so jealous of their honor, that each one of them felt it incumbent upon him to resent an insult offered to his neighbor. Like the English, the French are not without pride, though it is not like that of the English, personal, but national ; the dignity of the individual vanishes before the glory of France. Glory is the passion of the French, and if the national honor be advanced, a private or even a public calamity is little heeded. This passion for glory has had ample gratification, though at a tremendous sacrifice of human life. Napoleon owed his elevation to this passion in the French and to his power of ministering to its gratification ; he gave them glory, and they bartered freedom.

The French are more sensible to the impressions of joy than of sorrow ; they feel the good and forget the evil. The present outweighs the future, and the existing impulse is the ruling one ; this is the instability which the English call insincerity. This also produces a facility of adaptation to circumstances, that enables them to bear reverses better than any other people, and that makes them feel at home, wherever they are ; in courts, or camps, or among the wildest savage tribes. It is noted in America, that the French settler in the forest, sooner than any other European, becomes identified with the Indian. The natural cheerfulness of the French is sustained by a general urbanity, that exists in no other country ; their politeness then is both a feeling and a habit, and it is a better guard of social order than an armed police. There can be few quarrels and little calumny, where there is no offence ; and pugilism, which is in England held to be so necessary for self-defence, would seldom be called into action in France.

The forms as well as the spirit of politeness pervade all classes, and a laborer has as high a sense of what is due in this way from him to his equal, as a nobleman can have of what is due to and from his peer. Beggars take off their hats to salute each other, and if two porters jostle each other in the street, the first impulse of each is to beg the other's pardon ; whereas in England a similar rencontre would give occasion for at least hard words. This universal civility, or regard to the feelings of others, is seldom ridiculed by any but the English, who very naturally undervalue what they do not possess themselves.

The cheerfulness of the French is not boisterous, or occasional ; it is constant, and connected with great kindness of feeling. There is so little separation of families, that the manner of life seems almost patriarchal, and several generations often live under the same roof, as at La Grange. It is a common and a delightful sight to behold the whole family group from youth to age, come out and enjoy themselves on some holiday or *fête*. The very terms by which these address each other show a mingled simplicity and kindness of heart. The grand-sire is called *le bon papa*, or the good father, and the grandmother *la bonne maman*. The wife speaks of her husband as *notre mari*, "our husband" ; the children are called *petit*, or *petite*, and the maidservant is known only as *la bonne*. Wherever the French congregate, there is a spirit of enjoyment spread over them ; there is joy and animation in every face. Wrangling or intoxication, that are so often seen in an English or an American concourse, are almost unknown in France. Dancing is as much the expression of joy as weeping is of grief, and a traveler cannot go far in France without beholding a village dance, to which, as there are no refreshments, the national cheerfulness is the only incentive. In other countries it is not common to see the aged even sitting to behold the dances of the young ; they are too uninterested in pastime to be present ; but in France the aged have scarcely less vivacity than the youthful ; and the grandfather, surrounded by his offspring,

"Has frisked beneath the burden of threescore."

This social disposition has raised conversation to the dignity of an art. Genius and wit are better titles than nobility, and those who have neither, may successfully cultivate their powers of conversation, till they become good *raconteurs*, or relaters of stories. A *séjour* is not esteemed like an English rout according to the number of visitors who cannot find seats, but according to the actual social enjoyment, and the lively conversation ; the best talkers, therefore, are not the least welcome. It is said, that a lady of rank after a death in her social circle, exclaimed on meeting a friend, "Alas, Madam ! I have suffered a severe loss." The other thinking it could be little less than a husband, was about to condole with her, when the bereaved continued, "I have lost my best — talker," (*causur*.) The French ladies carry this art of conversation to a point little short of fascination. Animation or enthusiasm

is never checked ; the expression of no emotion is suppressed, and the voice is as much trained and modulated in talking, as in singing. Napoleon feared the salons of Paris more than the armies of his enemies. He knew the taste and talents of the French for epigrams, of which he dreaded to become the object, as he was aware of the influence of ridicule over his subjects. It must be allowed, that these Parisian squibs are sufficiently pointed and poised to wound, but they are more generally political than personal. There is much satire, but little calumny.

In France, the condition of females is peculiar. In the fields they labor, and perhaps even more than in England, with the men ; but it is not the toil of compulsion, or poverty. They are allowed to feel at least an equal interest in all matters of property, and in many cases, they have the entire management ; the shops, the cafés, &c., of Paris, are under the charge of females, and in these, their realms, the husband is little more than a subject. The *salique* law, that regulates the succession of the crown, has no force in the shops, or salons. In French society, woman is placed on an elevated pedestal, and if, by reason of her good sense, she is not spoiled, it is not because flattery is not offered, and incense burned. The *boudoir* is the sanctuary of a married dame, and the husband, who should enter it unbidden, would regard his power more than his character ; he would bear the reproach of society, and be deemed a brute ; for it is a great evil, in French society, that the unmarried females have too little freedom, and the married, quite too much. The *boudoir* is a fit retreat for the graces, and other females of the mythology. Paintings, statues, vases, and flowers, nature and art, combine to adorn it. It is the palace of Armida, the bower of Calypso ; but it breathes of Helicon less than of Paphos.



French Peasantry.

It is the character and condition of the most numerous class, that has the greatest influence upon a country ; and in France, the peasantry are truly a respectable body. They constitute a great majority of the people, and their condition has been exceedingly improved by the Revolution. The abrogation of all feudal service, which was severely exacted, is alone of vast advantage. The *corvée* compelled the peasant not only to labor on roads and bridges, but to do other service, to which little pay was attached, at the bidding of his feudal lord. With the dissolution of the monasteries, and the confiscation of the property of the emigrants, there came a division of lands, that enabled the peasants to become landholders. They were allowed 5 years, in which to pay for the land, and they were permitted to purchase in the smallest quantities. This circumstance alone has vastly improved their characters. It has given them

an independence, without which, no virtue is secure. They have many comforts, and poverty is seldom so extreme among them, as to harden the heart, or depress the spirits. They are almost universally above want.

There is a cow to every cottage, and as there is little pasturage, it is the employment of the family, on part of the Sabbath, to go forth, and cut grass in the woods, and the way-side. Every cottage has its *grande chambre*, where all the articles of finery are bestowed. A high and neat bed is indispensable ; this is well furnished with curtains, and mounted by steps. At the head are the relics, the image of the Virgin, and there is generally a clock. The garden produces a variety of flowers, for which there is a national taste. In the season, everybody has a bouquet, and children stand ready to toss bunches of flowers into the passing coaches, with the good wish of " *bon voyage*." Fontenay-aux-Roses had the privilege of supplying the court and the parliament with roses. The peers and magistrates, in their assembly, in May, received a bunch of flowers, in which the roses were arranged according to the rank of the individual.

It is unsafe to draw general or sweeping conclusions, in writing of national character. We are too apt to forget, that the substance of all character is the same, and that the accidents only differ. Individuals of the same nation, differ much more, than the general character of two nations. The difference of language, manners, and dress, is so apparent to the senses, that it is often extended to other points, in which there is no dissimilarity. It would be well for our species, could there be, in one nation, a union of what is estimable in the English character, with what is amiable in the French ; that the asperities of the one, could be softened by the gracefulness of the other ; that unbending principle and inflexible faith, could be blended with innocent gayety and happy simplicity.

21. *Amusements*. There is no country in the world, where there is such a variety of amusements, as in France ; and no people in the world are so easily amused. A stranger, who visits Paris for the first time, finds himself in a perpetual whirl of petty diversions, which, however childish, are amusing, as long as the charm of novelty lasts, but which never become insipid to a Frenchman of any age or rank. One of the chief resorts of persons of every condition, in Paris, are the public gardens at Tivoli. They are thrown open twice a week, and brilliantly illuminated with colored lamps, and are somewhat in the style of Vauxhall, in London, but animated by diversions, which could never be imagined by a sober Englishman ; such as sailing in wooden boats, slung to wires ; swinging in *balançoires*, which go so high as nearly to take away the breath, &c. There are, also, small temporary theatres, filled with mountebanks, buffoons of every description, fortune-tellers, dressed like hermits, and jugglers, all exciting the laughter and admiration of the assembled crowds.

In some parts of the gardens, groups of well-dressed persons, of the lower class, are dancing to the sound of the violin, with that native ease and grace, which seem inherent to the French peasantry. There are, also, *cafés*, with ices and lemonade, for those who wish for refreshments. Tivoli is the resort of every class, the highest and the lowest ; yet there is neither riot nor excess of any kind. The utmost mirth, and gayety, is mingled with the most perfect decorum. The evening concludes with fireworks of the most brilliant description, and the whole scene, the lights, gay dresses, and sounds of merriment, are lively in the extreme. Sometimes a "*fête extraordinaire*" is announced for Sundays, and more is then paid for admission, except by the regular subscribers for the season. On these occasions, there is usually a mock-siege, with all the accompaniment of cannon and fireworks, and which generally ends in a mock battle between the French and English, in which the latter are beaten, and dead bodies, in red coats, are strewed about in all directions.

Beaujon, was another garden of the same description, famous for its *Montagnes Russes*, and lately suppressed, by order of government, on account of the numerous accidents, which happened in the flying cars. A scaffolding was erected, in the form of a steep mountain. Over this, ran an iron railroad. Small cars were drawn up to the summit, by means of ropes attached to the cars, and pulled round a wheel by horses. When they reached the top, they were pushed down with amazing rapidity. The smallest obstruction, a pebble or a piece of wood, on the road, occasioned their overturn. Nothing could exceed the enthusiasm of the Parisians for this amusement. The cars were engaged for hours before the *fête* began, and anxious crowds stood waiting for their turn, with breathless anxiety. The Czar of Russia, when he visited Paris, under his traveling name of Count Ruppin, used to make frequent journeys over the *Montagnes Russes*. There are similar mountains at Tivoli, but the descent is less steep,

and consequently less dangerous. There are many inferior gardens of this description in Paris, equally gay, but less celebrated.

The fête of St. Louis was kept with peculiar magnificence in Paris during the latter days of Louis the Eighteenth. The city was illuminated; and the whole road, from the palace of the Tuileries, to the *Barrière de l'Etoile*, at the end of the *Champs Elysées*, had the appearance of a brilliantly lighted avenue. The gates of the Tuileries were thrown open, and the gardens presented a blaze of variegated lamps. The fountains played. Innumerable crowds filled every part of the *Champs Elysées*, the Tuileries, and the neighboring avenues. All the *Marchands de Plaisir* in Paris had ranged their booths along the gardens, with ices, confections, and refreshments of every description. Bands of music, consisting of harps, violins, and horns, filled the air with sounds of gay music, *tyroléennes* and *vaudevilles*. Women, enveloped in thick black or white veils, sat in corners of the gardens playing on guitars and singing, attracting crowds by their air of mystery. The fireworks exhibited in front of the *Chambre des Députés* were unusually splendid.

The operas and theatres in Paris are constantly crowded, notwithstanding their number. The French Opera is famous for its ballets; the Italian Opera, for the excellence of its music; *Théâtre Française* and the *Odéon*, for the best tragedy and comedy. Besides these, there are the *Opéra Comique*, the *Théâtre de la Porte St. Martin*, the *Variété*, the *Gymnase*, and many others. The *Palais Royal*, of which the principal part belongs to the Duke of Orleans, consists of the palace itself, and a long range of arcades, celebrated for the beautiful display and variety of shops, and for its gambling-houses, more especially the *salon*. These gambling-houses were, till lately, under the protection of government; gambling is, perhaps, the only amusement, of a vicious description, that the French are partial to.

But though Paris is the centre of gayety, the same love of amusement is observable through every part of France. Nearly all the money made by the laboring classes is spent at the numerous fêtes enjoined by their religion. The *Fête-Dieu* is one of the most solemn; and is celebrated on two successive Sundays. In every town and village in France, the inhabitants are employed, for days before, in erecting and embellishing the *reposoires*, so called, as being resting-places for the possession of the Host. They are stands covered with white, embroidered muslin and lace, adorned with silver candlesticks, flowers, branches, and ornaments of every kind. The path by which the Host is to pass is strewn with flowers and green branches. The peasants are all dressed in their best attire. The interior of the churches is ornamented with flowers. Garlands are placed on the figures of the Madonnas and Saints; and the priests are all dressed in their most splendid robes, to do honor to the solemnity. The Host, regarded as the real presence, is carried in a vase by a priest, who conceals the divine symbols under the folds of an embroidered veil. A canopy of crimson velvet is held over his head by four other priests. The rest follow, singing a hymn in Latin, suitable to the occasion. Crowds of well-dressed persons follow. In Paris, the late king and royal family, the Duchesses of Berri and Angoulême walked in solemn procession behind the priests. As the Host passes, the whole assembled multitude uncover their heads, and prostrate themselves before it. When the procession arrives at the *reposoires*, the priests stop and pronounce a prayer. These processions are now forbidden at Paris, by order of the French government, in consequence of some seditious persons having taken advantage of them to occasion a riot, and hoist the *drapeau blanc*, but in the provinces they are still continued.

Nearly every amusement in France terminates by dancing. In the most remote parts of the country, groups of peasants may be seen every evening dancing quadrilles and waltzing under the trees, to the sound of a rustic violin, and frequently singing in chorus. In most of the villages, there is a public house, where the village politicians assemble every evening, and frequently engage in fierce and vehement debates, but which usually terminates by loud and convivial songs, with the chorus of "Vive la Liberté."

22. *Education.* Until 1833, the provisions for elementary education were very scanty. Now there are about 43,000 elementary schools in France, attended by 4,000,000 children, or about four fifths the number between the ages of 6 and 15 years. It has been calculated that nearly one half the individuals in the nation cannot read, though they are more intelligent than the same class in other countries; probably, because they are more social. Education is now receiving the attention of the government, and schools upon an improved plan have been introduced into every large city. The establishments for education consist in faculties, which have the right of conferring degrees, as in Theology, Jurisprudence, Medicine, Mathematics, National

Philosophy, and Belles-Lettres. In the Royal Colleges, (which are a grade lower,) and of which there are about 40, lectures are delivered gratis to the students, and instruction given in the classics, history, rhetoric, mathematics, &c. The District Colleges or High-schools are preparatory to these colleges, and are 322 in number. Reading, writing, and arithmetic, &c., are taught in them.

In Paris, there is a great diffusion of knowledge; it is the spirit of the place, and of the age, to throw open to the public the vast collections in science and art; and there are public lectures on various scientific subjects. It is common in Paris to see fruit women, coachmen, and others of the same class, reading while on their stand; and the book, if examined, would be found to be a volume of Racine or Corneille, or of some author of that grade.*

23. State of the Arts, Sciences, and Literature. France is rich in scientific works, especially in zoology, botany, chemistry, and mathematics. Among many other names distinguished in these sciences, are Buffon, Cuvier, La Place, Lape  de, Jussieu, Lavoisier, Fourcroy, Geoffroy, &c. The French literature abounds in excellent works on morals and law; and in memoirs and letter-writing it is unrivaled. The ornamental arts are in a high state, and Paris is richly endowed with painting and sculpture. Many of the monuments of ancient art collected by Napoleon, in the capital, are yet in France. The king's museum, in the Louvre, affords a greater display of fine paintings and fine statuary, than any other collection in the world. Yet these do not seem to have had the effect upon the national taste which might naturally have been expected. A dry and insipid imitation of the Greek style distinguishes both the painting and sculpture of the present day in France. David, born in 1750, was the founder of the modern school of painting. In his desire to correct the florid and unmeaning style which had existed since the days of Louis the Fourteenth, he fell into the contrary extreme. He applied himself to the study of antique sculpture, and with much success. His drawing and design are correct and noble, but his works are in general devoid of simplicity and nature. In his style, he resembled Poussin, but that great artist represented the simplicity and repose of the ancient statues. David added forced attitudes, and exaggerated expressions to his figures. Yet, the *Horatii* of David, his *Funeral of Patroclus*, and his *Coronation of Napoleon*, are fine performances; and his portraits of his Imperial patron Napoleon, can hardly be criticized. Those who have followed in the style of David, have in general adopted his faults, and their want of talent renders their errors more glaring.

The French sculptors of the present day have more science than feeling or invention. Their works display the correct proportion and symmetry of the Grecian statues, but are totally wanting in the divine expression and sentiment which animated these works. In the useful arts, the French have many ingenious inventions, but they are, on the whole, much behind the English. In copper, steel, and wood engravings, they are also inferior; but they have brought the lithographic art to great perfection, and by means of this, we are supplied in the United States with beautiful copies of many of the best paintings in Europe, as well ancient as modern.

24. Religion. Until the revolution of 1830, the Roman Catholic was the established religion; but no one sect has now any advantage over another. The following are the principal clergy; there are several cardinals, all of whom have 30,000 francs a year, except the archbishop of Paris, who has 100,000. There are 14 archbishops, who receive (except those who are cardinals) 25,000 francs a year. There are 66 bishops, with salaries of 15,000 francs; 174 vicars-general, who receive from 4,000 to 2,000 francs; 660 titular canons, or prebendaries, receiving from 2,400 to 1,600 francs; 1,788 honorary canons and 3,085 curates or rectors, receiving from 1,600 francs to 1,100 francs. 26,800 *desservans* who perform the duties of the titular clergy, receiving from 900 to 750 francs; 5,756 vicars, 439 chaplains, 839 almoners, 1,976 priests, resident in parishes, and 1,044 directors, and professors of seminaries. The total number of Catholic priests actually doing duty is nearly 40,000. The number of women in religious establishments is about 20,000. There are 1,983 of these

* France had 23 Universities before the revolution. Of these, the Sorbonne, founded at Paris in 1250, by Robert de Sorbonne, was the most celebrated. The academies and literary societies were 29. The universities were supplanted at the revolution by the *  coles centrales, primaires et secondaires*. The academies of Paris were united into one, and denominated the National Institute, soon after the revolution. This institution is divided into 4 academies

the *Acad  mie Fran  aise*, composed of 40 members; that of *Inscriptions and Belles-Lettres*, also of 40; the *Royal Academy of Sciences*, with 63; and that of the *Fine Arts*, with 40; Napoleon's *Imperial University* has been retained with some modification. It includes 26 *acad  mies universitaires*, preparatory to which are the colleges or high schools.

establishments.* The Catholic church costs the government annually 7,000,000 dollars. In Paris, there are 30,000 Protestants, and in France upwards of 2,000,000. They have 96 consistories, 438 churches, and 305 pastors, paid by government. The Protestant church, costs the government annually 200,000 dollars.

The marriages are contracted early, and among the higher classes too often by the parents. The bride brings a truly liberal portion of all the various kinds of clothing, &c., called the *trousseau*, and it is the province of the bridegroom to furnish the jewels. No people are so poor that they have not ornaments of gold. Divorces are not common; but there are many separations, which are settled by contract. The funerals and cemeteries in France are worthy of imitation. The dead are not laid in a dismal, and "neglected spot"; but their place of rest is adorned with classic monuments, shaded with trees, and planted with flowers. In an English or American burying-ground, a person is seldom seen unless at burials; but in France many of the graves are daily strewn with fresh flowers, by surviving friends; and family, and other groups, are often seen among them. The cemetery of *Père la Chaise*, at Paris, is one of the most remarkable and interesting objects attached to the capital.

* There are now few monasteries in France; but scarcely a town of any note, where there are not one or more convents for nuns. Sometimes these convents are attached to the hospital, and the time of the nuns is exclusively devoted to attendance upon the sick. In this case, they are not cloistered, as their duty frequently calls them to different parts of the town or country upon errands of charity. They merely wear a peculiar dress, divide their time between acts of benevolence and religious duties, and do not mix in society; such are the *Sœurs de la Charité*, and the *Sœurs de la Providence*, of whom there are societies all over the continent of Europe, and who may be seen with their downcast looks and folded arms gliding along the streets of the populous cities, apparently unconscious of all that is passing around them. Still more frequently, they devote themselves exclusively to the education of girls, and almost all the ladies both of France and Italy are brought up in these *Pensionnats*. There are also convents, where the nuns employ themselves both in attending the sick, and in the education of youth; such, for example, is the Convent of *Les Sœurs Hospitalières* at Bayeux, a town which has now dwindled into comparative insignificance, but which is still the residence of a bishop, and remarkable for the elegance of its cathedral.

The streets of Bayeux are mean and dirty, and on arriving at the convent gates, the mind is totally unprepared for the quiet and beautiful scene of seclusion which the interior presents; and which is rendered doubly striking from its existing in the very heart of a manufacturing town. Upon ringing at the gate, the door is opened by the portress, and after passing through a long stone passage, the stranger is conducted into a small parlor, advancing from the building with an iron grating in front, a few chairs, and a stone floor. Behind the grating is a dark-red curtain, which, by its air of mystery, excites a degree of impatient curiosity for its removal. In a few minutes, the curtain is drawn aside, and one of the nuns, probably a *Sœur Supérieure*, dressed in the habit of the order, and distinguished by the large bunch of keys hanging at her girdle, appears at the grating and enters into conversation with the visitors. No gentleman can be admitted into the interior, but an order from the superior can be obtained for the admission of ladies, who wish to view the establishment. In the mean time, nothing can be more striking, than the scene which is visible through the grating, which seems like a glimpse into a world totally distinct from that which we have left behind us. In the large and beautiful garden, tastefully diversified with trees and flowers of every hue and variety, groups of nuns, with long black veils, may be seen gliding among the trees and through the winding alleys. Some are employed in teaching the *pensionnaires*, some are embroidering under the shade of the trees. All seem cheerful and contented; all are occupied, and pursuing their various tasks with assiduity. When the order for admission is obtained, the inner gates are opened, and the *Mère Supérieure*, a venerable old lady, leaning on a staff, re-

ceives the strangers, and conducts them into the garden, where a nearer view of the inmates tends to dissipate still more effectually those ideas of gloom, which seem connected with a conventual life.

The convent is a large stone building of great antiquity, and formerly one of the wealthiest in France. It contains upwards of two hundred nuns, governed by a superior, chosen from among their body; and at whose election is a solemn religious ceremony. The superior is appointed for a certain number of years, but at the end of that period, the same is usually reelected. Of these nuns, the greater part are cloistered, but there are some lay-sisters, and numerous novices. Though there are many of their number belonging to the oldest families in France, and some of a much lower rank, there are no distinctions of that nature among them. By turns they make the beds, sweep the floors, and attend upon the others at table. Nothing is more deserving of attention than the hospitals which form part of the building. They consist of two large and airy apartments; the one destined for the reception of men, the other for that of women. There are a hundred beds in each, and the scrupulous neatness and cleanliness which reigns throughout; the kindness with which the nuns talk to the invalids; the pleasure which their visit seems to afford to these poor people; and the respect and gratitude with which they are regarded; cannot fail to impress the stranger with a favorable idea of the establishment. Two small laboratories are attached to these rooms; in each of which a nun is in constant attendance, to mix up medicines, and have in readiness all that may be wanted for the invalids. They are very skilful, both in surgery and medicine; and dress the wounds of their patients with their own hands, watch by them all night, and spare neither trouble nor fatigue in their service. Persons with malignant diseases, such as small-pox or typhus fever are not admitted, on account of the *pensionnaires*, who would thus be exposed to infection.

The dormitory for the *pensionnaires* is a noble apartment, a hundred feet in length, having two long ranges of small beds, with curtains as white as snow. A large lamp hangs from the roof, and is kept burning all night. Two nuns sleep in the apartment, to take charge of the boarders. The other nuns sleep in separate cells, small rooms with no other furniture than a bed, a chair, a crucifix, and a few prints of saints or Madonnas. A handsome chapel belongs to the convent, where the Bishop of Bayeux officiates upon great occasions. The hours of prayer are numerous. At 12 o'clock, when the angelus is rung, they meet in the chapel; also in the afternoon, for vespers. At all hours of the day some of the nuns may be seen in the chapel, kneeling on the floor, like motionless figures of stone, muttering their prayers before the altar. A confessor belongs to the convent, chosen by the bishop, and admitted at all hours. Occasionally, the superior receives the visits of other priests, and permits the nuns to see him, according to her discretion. The lay-sisters are permitted to walk with the boarders, and

25. Government. Since the meeting of the States General, in 1789, France has had no less than ten constitutions. In 1791, a limited monarchy was established, with a single legislative assembly; in 1793, a democratic republic succeeded, but never went into effect, being replaced by the dictatorship of the convention and those who controlled it; in 1795, the directory with two chambers was introduced; in 1799, the consulate; in 1804, the empire of Bonaparte; in 1814, a limited monarchy, under the Bourbons, with two chambers, hereditary peerage, and 130,000 electors; in 1830, limited monarchy, with Louis Philippe for king, with two chambers, a peerage for life, and 200,000 electors; in 1848, a republic, with a president for three years not re-elegible, a single chamber and universal suffrage; in 1851, a president-dictator; in 1852, the restored empire under Napoleon III.

26. Laws. Several hundred particular systems of customs have been reduced to five codes, with general principles; the civil code, or general law of the country; the commercial code, the penal code, and the codes of civil and of commercial procedure. They embody what was before loose, voluminous, and little known; the old laws of France are, therefore, necessarily referred to, for the illustration of these codes. The civil code has not been changed by the Restoration, except in its name, which was before that event, the Code Napoléon. The criminal code is not sanguinary, though it has been charged with giving too much power to the officers of government, in the selections of jurors. The courts are modeled on the English plan.

27. Antiquities. The antiquities are principally architectural, and are generally included in our description of towns. There are, however, many Roman remains. At Paris, there is one apartment, 60 feet long, and 42 wide, vaulted, and having 3 interior arcades, the sole remnant of the Palace of the Warm Baths, built by Constantius. At Lyons, there are several antiquities, especially the remains of two aqueducts, ascribed to Mark Antony, or Agrippa; a beautiful mosaic, the ruins of a theatre, and of subterranean reservoirs. Many medals, coins, vases, statues, &c., have been found in the vicinity. At Nîmes, are more perfect monuments. The beautiful edifice, misnamed the *Maison Carrée*, is in almost perfect preservation. It was some public edifice with a portico of six Corinthian columns in front, and three on each side. The cornice, frieze, capitals, and carved acanthus leaves, are perfect models in architecture and sculpture. The Temple of Diana has also much of the noble simplicity of ancient art.

But the greatest monument, though not the most beautiful of ancient Nîmes, the *altera Roma*, is the amphitheatre, which has no superior, but the Coliseum, and which is in a better state of preservation than that. It is of cut stones of prodigious size, which have the marks of the fire made by Charles Martel, to dislodge the Saracens. The porticoes are perfect, with columns, pilasters, and decorations, especially two bull's heads, two gladiators, and the she wolf with Romulus and Remus. There are also baths, mosaic pavements, and various fragments. The Pont du Gard, 7 leagues from Nîmes, is a stupendous Roman monument. This was an aqueduct across a river, composed of three several bridges, one above the other,

may be sent on errands, when anything is wanted for the use of the convent. The novices are strictly watched, and seldom allowed to leave the gates. They are distinguished from the others by their white veil. Their noviciate lasts three years, and a considerable sum is paid by them on entering, after which they are maintained by the establishment. The ceremony of taking the black veil is one of the most solemn and beautiful in the Roman Catholic religion.

High mass is celebrated in the chapel. The Bishop officiates in his splendid robes. The novice appears dressed in white, and sometimes decked with jewels like a bride. She kneels before the altar while the Bishop pronounces a discourse upon the solemnity of the vows which he is about to pronounce. She then retires behind the altar. Her long hair is cut off and she is invested with the nun's garment. She is then led forward to the Bishop, and having pronounced upon her knees, her intention of abjuring the world, and devoting herself to the service of God, she receives his benediction. The black veil is thrown over her. A solemn hymn is chanted to the notes of the organ, and the gates of the convent are henceforward closed upon her forever. It is true, that by the order of government, all nuns are now regarded as free from their vows after a certain period; but though a

nun who breaks her vows is no longer built up in a wall as in days of old, yet there is a brazen wall of prejudice and public opinion, which is almost as formidable to her, and it is probable, that a long period will elapse before any female will have courage to break through these barriers, and to expose herself to the scorn of her companions, and the indignation of the Church.

The dress of the *Sœurs Hospitalières* is a robe of white casimir; a white muslin bandeau which crosses their forehead, with two long pieces of white muslin, which fold across the breast; a long veil of black crape, which conceals part of the face, and hangs down to the knees; a black and gold rosary with an iron cross upon which is an image of the crucifixion, and which usually contains relics, such as small pieces of the bones of saints; a piece of the true cross, &c. &c. The nuns read no books which are not first examined by their confessor, and these are usually limited to the lives of the saints, and other works of a religious nature. Their evenings invariably conclude with psalms and prayers, performed in a large parlor, where they assemble when the duties of the day are over. The beauty of their embroidery is famous all over Europe. It is usually employed in robes for the priests, and hangings for the altars.

of which the arcades successively diminish in space, and increase in number. The first range of arches has 6 openings, 83 toises in length, and 10 toises and 2 feet high; the second range has 11 arches of the same height, but 133 toises, 2 feet in length; and the third range has 35 arches, on a much smaller scale, and this was the canal or aqueduct. There are many other Roman remains in different parts of France, but these near Nîmes are by far the most interesting. Rousseau thus describes his own sensations on beholding the Pont du Gard. "I came," says he, "prepared to behold a monument worthy of the hands which had reared it. For the first time in my life, the reality surpassed my expectations, and it belonged only to the Romans to produce this effect. The aspect of this simple and noble work struck me the more, as it is in the midst of the desert, in which silence and solitude render the object more striking, and admiration more lively. One asks himself, what force can have transported these enormous stones so far from any quarry, and brought together the strength of arm of thousands of men, where there is not one man now? I went over the three stories of this superb edifice with a sentiment of respect which made me almost fear to tread it; the echoes of my footsteps beneath its immense vaults seemed as if I heard the strong voice of those masters of the world, who had built it."

28. *History.* France was originally inhabited by the Gauls, a Celtic tribe. Julius Cesar subdued them, and the country became a Roman province. The Franks, a people of Germany, invaded Gaul in the 5th century and Clovis, their king, may be considered as properly the first sovereign of France.* His descendants are called Merovingians, from Merovius, one of the ancient sovereigns. This race of kings became extinct in 754; when Pepin the Short, *maire* of the Palace, became king. This second race of sovereigns are called Carolingians, from Charles the Great, or Charlemagne, son and successor of Pepin, who became not only sole monarch of France, but Emperor of the West, and was crowned by the Pope at Rome. The Carolingian dynasty ended in 987, by the accession of Hugh Capet, Duke of France, to the throne. The houses of Valois, Bourbon, and Orleans, which have subsequently reigned in France, are different branches of the Capetian stock.

The Franks were a free people; and the feudal system was established under Hugh Capet. The early wars with the English generally resulted to the disadvantage of the French; and Henry the Fifth of England, so far subjugated the country as to win for his successors the title of king of France. In the beginning of the 16th century, however,



Early Kings of France.



Pepin.

Bertha, wife of Pepin.

Charlemagne.

* *Louis*, the name borne by so many of the French sovereigns, is a corruption of *Clovis*.



Louis XIV. Maria Theresa, wife of Louis XIV. Louis XV.



Louis XVI. Marie Antoinette, wife of Louis XVI. Louis XVIII.

among the powers of Europe ; but though anarchy reigned within, France repelled foreign armies, while the different parties in the National Convention proscribed, banished, and massacred each other. The government of the Directory succeeded, but was overthrown by Bonaparte, who became consul of the French Republic. He put an end to factions, added new glory to the national arms, closed the gulf of the revolution, and gave a short peace to France.



Bonaparte's Retreat from Moscow.

the power of France was developed, and her influence upon the affairs of Europe began to display itself in the conquest of Italy by Charles the Eighth. From this period, the kingdom gained power and ascendancy in the political system of Europe. Louis the Fourteenth maintained great armies, and carried on wars for the amusement of the ladies of his court. Coalitions arose against him, and the power of France was crippled for half a century. Louis the Sixteenth espoused the cause of American Independence, and introduced liberal notions of government among his people. The finances became embarrassed, all ordinary methods of retrieving them were found ineffectual, and the States General, or ancient assembly of the representatives of the people, were summoned. From discussing fiscal affairs, they passed to debates upon the principles of government, and the French Revolution began.

A new era commenced, marked by a political fanaticism, of which history affords no other example, and by crimes, the recital of which fills the mind with horror. Louis the Sixteenth, and his wife Marie Antoinette, fell upon the scaffold, and France was governed by a few persons, who established the most sanguinary despotism, under the name of liberty. A crusade against revolutionary France was raised

In 1804, the Consul converted his laurels into an imperial diadem. Wars and coalitions against him only served to increase his power, and add territories to the French empire. Napoleon ruled over the greatest part of Europe. When Consul, he changed kingdoms into republics. When Emperor, republics were changed into kingdoms. He founded monarchies in Germany ; he gave crowns to his generals. Twice he saw the crown of Prussia at his feet without seizing it, but lavished the best blood and treasure of the empire to place his brother on the throne of Spain. In 1812, he marched with an army of 400,000 men into Russia,

and reached the ancient capital of the Czars, only to be a witness of its conflagration. A severe winter destroyed his whole army; and the man, who shortly before, had the most powerful host in the world at his disposal, beheld himself in a paltry sledge, fleeing obscurely homeward across the frozen deserts of Poland. Yet never was the genius of this extraordinary person more strikingly manifested than in his unexampled reverses. A few months saw him



Buonaparte crossing the Alps.

again at the head of 300,000 men, and though abandoned by his allies on the field of battle, he made a glorious resistance against the combined efforts of Europe. His capital was occupied by the enemy in March, 1814, and he abdicated the crown, and retired to Elba.

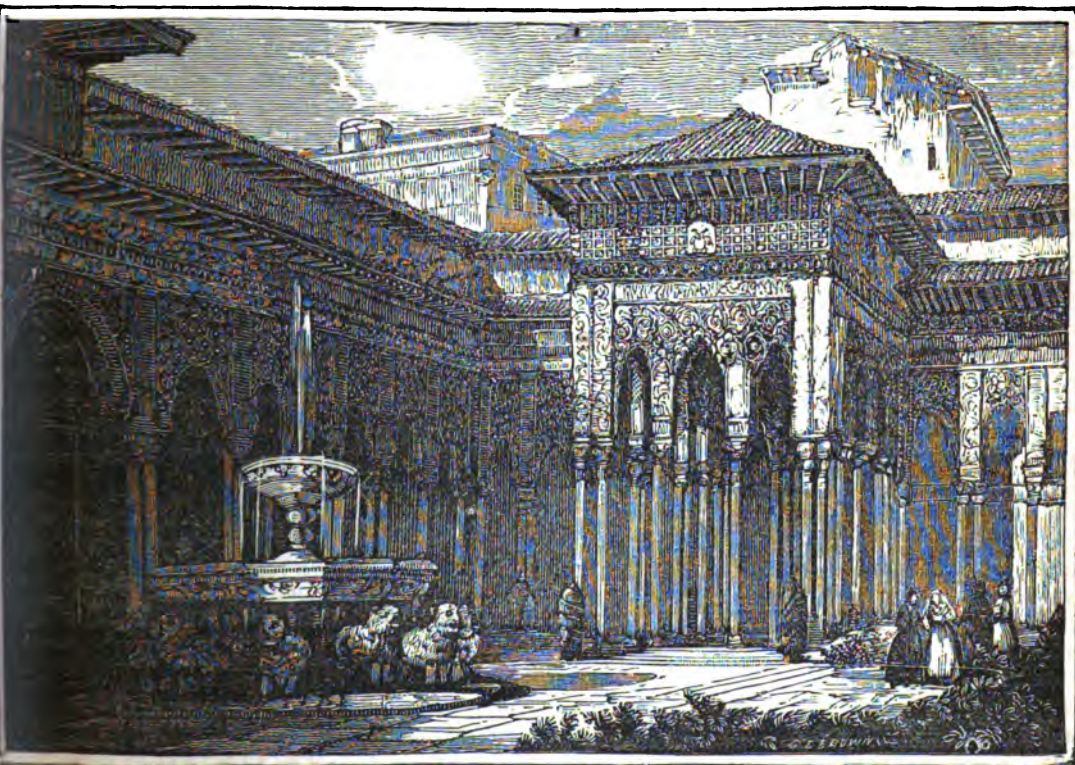
The Bourbons, in the person of Louis the Eighteenth, returned to the throne, from which the revolution had expelled them, but the disgrace of a foreign occupation wounded the national pride. Napoleon availed himself of the general discontent, and landed at Frejus on the 1st of March, 1815. The sight of his face drove everything that was Bourbon out of the country, and he entered Paris at the head of the troops sent to take him prisoner. He levied an army for the national defence, gained the victory of Ligny, and was defeated the next day at Waterloo. He again abdicated, threw himself upon the generosity of the English, and died a prisoner and an exile, at St. Helena, in 1821.

After the second restoration, France had need of repose, and the Bourbon dynasty, although twice forced upon the people at the point of the bayonet, might, with wisdom and moderation, have kept upon the throne for many years; but Charles the Tenth was so foolhardy as to attempt the restoration of absolutism. He annihilated the charter by a stroke of his pen; the people rose in insurrection, and fought his troops in the streets of Paris. A three day's battle ended in the overthrow of the king on the 30th of July, 1830. Louis Phillippi, of the house of Orleans, succeeded as citizen king, but was himself expelled in February 1848, by a similar insurrection. After a republic for three years, Louis Napoleon became first president—dictator and then emperor.

CHAPTER VII. REPUBLIC OF ANDORRA.

This little state is situated on the southern declivity of the Pyrenees, between Catalonia, in Spain, and the department of Arriege, in France. The population of the republic is 15,400, occupying 34 villages, and 190 square miles of territory. The capital, Andorra, has 2,000 inhabitants. Iron and wood are the principal productions. The government is administered by a council, over which presides a syndic; two judges, one appointed by the king of France, and the other by the bishop of Urgel, in Spain, preside over the administration of justice in the retired and peaceful valley of Andorra.

CHAPTER VIII. SPAIN.



Court of the Alhambra, Seville, Spain.

PHYSICAL GEOGRAPHY.

1. *Boundaries and Extent.* Spain is bounded north by the Bay of Biscay and France, east and south by the Mediterranean and the Straits of Gibraltar, and west by Portugal and the Atlantic. It extends from $35^{\circ} 57'$ to $43^{\circ} 44'$ N. latitude, and from $3^{\circ} 20'$ E. to $9^{\circ} 40'$ W. longitude. Its greatest length, from east to west, is 640 miles, and its breadth 530, and it contains 183,000 square miles.

2. *Mountains.* The *Pyrenees* separate this kingdom from France, and run east and west from the Mediterranean to the Atlantic, skirting the whole southern shore of the bay of Biscay. In common language, the name of Pyrenees is applied only to that part of the range between France and Spain; the western portions are known by the appellations of the *Mountains of Biscay*, the *Sierra of Asturias*, the *Mountains of Mondonedo*, *Santillana*, and *Vindho*. They were known to the ancients by the name of the *Cantabrian Mountains*. This range is, in some parts, 120 miles in breadth. The eastern peak of the Maladetta, the loftiest summit, rises to the height of 11,441 feet. On the south, the Pyrenees have a sterile appearance; but their northern sides are less precipitous, and afford many woods and pastures. Their highest summits are capped with perpetual snow. The level country on the French side is much lower than on the side of Spain. The most important defiles through these mountains, leading from France to Spain, are from St. Jean de Luz to Irun; the pass of Roncesvalles, and the pass near the Mediterranean, from Perpignan to Barcelona.

Proceeding south from these mountains, we come to a second range branching off irregularly from the Pyrenees, first southeasterly, and then southwesterly. This is called the *Iberian Chain*, and, as it approaches toward Portugal, takes the name of *Monte Gata*. It divides Old from New Castile, and bears, in different parts, the names of *Guadarrama*, *Urbia*, *Oca*, *Moncago*, &c. Nearly parallel to the southern part of this, is another range, called the *Sierra de Guadalupe*, in the north termed the *Mountains of Toledo*. Still further south is the *Sierra Morena*, or *Brown Mountain*, which, in the time of the Saracen dominion, was the boundary between Moorish and Christian Spain. The most southerly range is the *Sierra Nevada*, or snowy ridge, which skirts the Mediterranean. These are the highest mountains in Spain. The *Cumbre de Mulahacen*, their loftiest point, rises to the height of 11,698 feet. The high summits are covered the whole year with snow and ice, and may be seen from the distant coast of Africa. On the other mountains of Spain, the snow seldom lies longer than a few months. Many of them are entirely barren, and exhibit nothing but a naked assemblage of crags thrown together in the most picturesque manner. Some are covered with a scanty crop of grass and brushwood, and others are clothed with magnificent forests. Firs, oaks, and cork-trees grow in the higher regions. Chestnuts, tamarisks, pines, and birches clothe their bases.

The Mountain of *Montserrat*, is a detached eminence of the eastern Pyrenees, about 30 miles northwest of Barcelona. It consists of a cluster of sharp peaks, rising to the height of 3,300 feet, and always capped with clouds. The whole mountain is 24 miles in circumference. There are 14 hermitages upon different parts of these heights, and about half way up, is a magnificent convent of Benedictines. The scenery, in every part of this remarkable eminence, is strikingly bold and romantic.

3. *Valleys.* The great valleys of this country, are traversed by the 5 principal rivers, described under the next head; their general outlines may be understood, from the preceding description of the mountain ranges, which mark their limits.

4. *Rivers.* The *Tajo*, or *Tagus*, rises in the Sierra de Albarracin, in Arragon, and flows west, between the Iberian chain of mountains and the Sierra de Guadalupe, through Portugal, into the Atlantic. It is a large river, with steep banks and a rapid current; but is not navigable, on account of its rocks and shallows. The *Guadiana* rises in La Mancha, and flows southwesterly, between the mountains of Guadalupe and the Sierra Morena, to the Atlantic, intersecting the southern part of Portugal, and, at its mouth, forming the boundary between the two kingdoms. It is navigable for 45 miles from its mouth. The *Guadalquivir* flows between the Sierra Morena and the Sierra Nevada, southwesterly, to the sea. It is a beautiful stream, and is navigable in the lower part of its course. In the north of Spain, is the *Duero*, flowing west, through Portugal, into the Atlantic. The *Ebro* rises among the mountains in the north, and runs southeasterly into the Mediterranean; its mouth is shallow and sandy. The *Guadalavivar* and *Xucar*, are smaller streams, running in the same direction. Most of the rivers of Spain have shallow and stony beds, and dry up in summer to such a degree, as to be nearly useless for navigation.

5. *Islands.* The *Balearic Islands* are a group in the Mediterranean, consisting of Majorca, Minorca, Ivice, and Formentera, with some smaller ones. Majorca, the largest, is about 100 miles from the coast. It is 40 miles in extent, each way, and is mountainous. Minorca possesses the valuable harbor of Port Mahon. These islands have generally a good soil, and produce oranges, olives, wine, &c., and they have 240,000 inhabitants.

6. *Coasts.* The shores are generally bold, and are furnished with many safe and commodious harbors, but there are no very large bays, or gulfs.

7. *Climate.* This country lies in the southern part of the temperate zone. The cold is never excessive, even in the northern parts. In the south, the heats of midsummer would be intolerable, but for the sea-breeze, which begins to blow at 9 in the morning, and continues till 5 in the evening. The interior is so elevated, as to be much cooler than might be expected, from the latitude. The two Castiles form a raised plain, nearly 2,000 feet in height. The provinces, along the Mediterranean, are the paradise of this kingdom. An everlasting spring seems to reign in this delightful country. The sky of Andalusia is pure azure and gold; the inhabitants of Seville affirm, that a day was never known, when the sun did not shine upon their city. Two kinds of winds are sometimes unpleasant in Spain. The *Gallego*, from the northwest, is piercing and cold; the *Solano*, a southwest wind, from Africa, is so hot, as to relax the human system, and produce giddiness and inflammation.

8. *Soil.* The greater part of the country is fertile, and covered with a luxuriant vegetation. The fruits and plants offer a greater variety than is afforded by any other region of the same extent. The land is everywhere favorable to the cultivation of the vine. The greater part of Spain may be regarded as naturally the most fruitful country of Europe; but there are extensive wastes in the interior.

9. *Geology.* The Pyrenean mountains are granitic, as are also the central ridges; schistus and calcareous rocks, as well as sandstone, abound among them. The low plains are covered with alluvial deposits, mixed with fossil bones. In the south, the mountains contain schistus, sandstone, and gneiss; and in this quarter, are vestiges of volcanic craters.

10. *Natural Productions.* There are 8 species of oak among the forest trees. Three of these are particularly valuable; the evergreen oak, or *quercus bellota*, with edible fruit; the cork oak, and the cochineal oak, on which the false cochineal, yielding a fine crimson color, is found. The other common trees, are tamarisks, pines, birches, chestnuts, pistaches, firs, poplars, &c. The fruits of the south are lemons, oranges, pomegranates, figs, olives, almonds, &c. The date palm grows upon the shore of the Mediterranean, and the exportation of dates from Spain forms a thriving branch of trade.

11. *Minerals.* Spain supplied the ancient inhabitants of Europe with the greater part of the precious metals they possessed, but her mineral products are small at the present day. Mines of quicksilver are wrought at Almaden, in La Mancha, and iron is furnished by the provinces of Biscay. Coal is wrought in Catalonia and Asturias. Crystallized sulphur is found in the neighborhood of Cadiz. 200 species of marble are enumerated in the kingdom.

12. *Mineral Springs.* These are very numerous, and are estimated, by some, at 1,200; but regular watering-places, and bathing establishments, do not exist in Spain. A hospital is the only common accompaniment. The springs of Trillo, or Guadalaxara, are used for drinking and bathing. Those of Sierra Vermeja, in Grenada, contain iron and sulphur. Those of Buzot, in Valencia, sulphur, iron, and salt. The baths of Archena, in Murcia, and Caldar de Monbuy, were known to the Romans.

13. *Animals.* Almost all the wild animals of Southern France, are common to Spain. The plains and mountains abound in game. The wild boar, the bear, and various kinds of deer, are found in the mountains of Galicia, and the Asturian forests. Hares, rabbits, partridges, flamingoes, and bustards, are common in Andalusia. The wolf still frequents nearly all the wooded and mountainous districts of the country. The chamois and the lynx find a shelter in the Pyrenees, and the other mountains of the east. The moufflon is found in the kingdom of Murcia. The genet, porcupine, scorpion, and chameleon, may also be mentioned. *Cantharides*, *tarantulus*, and mosquitoes, abound. Estremadura and Andalusia, are sometimes desolated by swarms of locusts from the African coast.

14. *Face of the Country.* Spain is an elevated, mountainous, and beautifully picturesque country. It exhibits an alternation of mountain ridges and wide plains, everywhere watered by rivers and small streams. The hills are covered with vineyards, and the valleys display the most luxuriant vegetation. The southern part looks like a garden in perpetual bloom. In external beauty, few countries in the world equal Spain.

POLITICAL GEOGRAPHY.

1. *Divisions.* Spain is divided into 13 captaincies, some of which have the title of kingdoms, and most of them are subdivided into several smaller provinces,* for civil purposes.

2. *Canals.* There are only two navigable canals of any importance. The *Imperial Canal* was begun with the intention of uniting Navarre with the Mediterranean, and is finished to below Saragossa. It is 74 feet wide, and $10\frac{1}{2}$ feet deep, being navigable for vessels of 100 tons. The *Canal of Castile* is partly executed, and is designed to connect the Duero with the harbor of Santander, on the Bay of Biscay. There are several other small canals in different parts of the kingdom.

3. *Towns.* *Madrid*, the capital, stands in the centre of the kingdom, in the midst of a barren plain 2,200 feet above the level of the sea, and surrounded by mountains. It has a handsome appearance; the streets are regular, and many of the buildings magnificent. It has 42 squares and many beautiful public walks. The Prado is an elegant promenade on the east side of the city, planted with trees, and ornamented with fountains. Here the wealthy and fashionable display their equipages, and hither all ranks resort in quest of amusement. Many of the squares are adorned with fountains; the handsomest is the Plaza Mayor, where the markets are held. The houses are generally of brick, and few of them have glass windows. Several royal palaces adorn the city and neighborhood. The new palace, considered the finest royal residence in Europe, forms a square of 404 feet, and 86 feet high; the Buen Retiro, another palace, is famous for its beautiful gardens. There is a magnificent bridge over the Manzanares, a little stream which runs by the city. Madrid contains 75 convents, 77 churches, 3 theatres, 18 colleges, &c. The learned societies, and cabinets of science and art are numerous, and give this city a high rank among the first capitals of Europe, in regard to learning and the arts. The Royal Library is rich in manuscripts, models, and antiquities, and contains 250,000 volumes. The charitable institutions are numerous; they are richly endowed, and the buildings pertaining to them are spacious and well attended. Madrid is a place of considerable trade and industry, the inhabitants manufacture woolen stuffs of every sort, carpets, silks, printed linens, and muslins. Population, 201,000.

Twenty-two miles northwest of Madrid is the Escorial, the most magnificent monastery in the world; it is built in a wild and rugged region, and forms a quadrangle 740 feet long, by 580 wide. It contains the royal apartments, a fine library and collection of paintings, and the sumptuous vaults in which are deposited the remains of the Spanish kings. The Escorial was built by Philip the Second, a stern and superstitious prince, in fulfilment of a vow, and dedicated to St. Lawrence, who suffered martyrdom by being burned to death upon the gridiron; the building is, therefore, made to represent that instrument. At *St. Idefonso*, 40 miles north of Madrid, is a superb palace, celebrated for its beautiful gardens; here is also a royal manufactory of mirrors, which are made of great size and superior quality.

Seville, the capital of Andalusia, is beautifully situated on the Guadalquivir. It stands in the midst of a plain, covered with olive plantations, hamlets, villages, and convents. It was formerly very rich and populous, being the chief mart for the American and India trade. The public buildings are very elegant. The general appearance of the city indicates the Moorish character of its former possessors. The streets are often so narrow, that a person can touch the houses on both sides at once. The principal public buildings are the cathedral, the largest gothic edifice in Spain, with 82 altars and a fine tower; the archbishop's palace, a magnificent structure; the alcazar, or palace of the ancient Moorish kings; 84 convents; 24 hospitals; 29 churches; the Exchange, &c. Seville contains a university, 9 colleges, and a school of taumomachy, in which the bull-fighters are trained. Its manufactures are extensive, compris-

* We give here both of these divisions.

<i>Captain Generalships.</i>	<i>Intendancies.</i>		
1. New Castile,	Madrid, Guadalajara, Toledo, Cuenca, and La Mancha.	6. Andalusia,	Seville, Xeres, Cordova, Jara, and the Colonies of the Sierra Morena.
2. Old Castile and Leon,	Burgos, Santander, Soria, Segovia, Avila, Leon, Palencia, Valladolid, Salamanca, and Zamora.	7. Granada,	Granada and Malaga.
3. Asturias,	Oviedo.	8. Valencia and Murcia,	Valencia, Murcia, and Cartagena.
4. Galicia,	Santiago.	9. Catalonia,	Barcelona.
5. Extremadura,	Badajoz.	10. Arragon,	Sarragossa.
		11. Navarre,	Pampelona.
		12. Guipuscoa (Biscay),	Vittoria.
		13. The Balearic Isles,	Palma.

ing silks, woolens, and tobacco. Several steam vessels navigate the river, but its commerce has been mostly transferred to Cadiz. Population, 91,000.

Barcelona, the principal manufacturing city of Spain, and one of the prettiest on the peninsula, is regularly built upon the shores of the Mediterranean. Its commerce is extensive, but the immense mole, designed to protect the harbor from the accumulation of sand, is unfinished. Cotton, silk, linen, lace, and arms are the principal products of its manufactories. Here are 4 public libraries, 8 colleges, several hospitals, numerous churches, and some remarkable public edifices. Population, 120,000. In the vicinity are *Tarragona*, with 11,000 inhabitants, and *Tortosa* with 16,000, remarkable for the ruins of their ancient splendor; *Reus*, an active manufacturing town, with 25,000 inhabitants, and *Figuera*s, celebrated for its vast and impregnable fortifications.

Valencia is a rich and elegant city, situated in a fertile and delightful country on the Guadalaviar, not far from the sea. It is one of the most flourishing manufacturing towns in Spain, and is inferior only to Madrid in the activity of its printing presses, and the extent of its book trade. Its literary institutions are numerous, and its beautiful walks are perfumed with the orange and lemon groves, by which they are shaded. Population, 66,000.

The other principal places in the captain-generalship of Valencia are *Orihuela*, with 26,000 inhabitants, and extensive manufactures; *Alicant*, a strongly fortified and active commercial town, with a fine harbor and a population of 25,000; *Murcia*, with 36,000 inhabitants, containing numerous literary institutions, and extensive manufactures of silk; *Lorca*, a manufacturing town, with 40,000 inhabitants, and *Carthagena*, with 37,000, noted for its docks, arsenals, observatory, and excellent harbor.

Granada, situated in a plain renowned for the fertility of its soil, the beauty of its scenery, and its delicious climate, is an ancient Moorish city; several magnificent edifices, its extensive squares, and numerous fountains attest its ancient splendor. The cathedral and the palaces of the archbishop and of the captain-general are spacious and elegant; but the boast of Granada is the Alhambra, or palace of the Moorish kings, which is admired for the richness and beauty of its vast colonnades, its splendid courts, its halls and arcades. Every traveler has been struck with admiration at the sight of its splendid halls, golden saloons, courts, alcoves, fountains, colonnades, and mosaic pavements, which almost realize the description of fairy land. No wonder the Moors never ceased to regret the loss of Granada. Even to this day, they are said to offer up prayers every Friday for the recovery of this city, which they esteem a terrestrial paradise. The Generalife is another palace, which afforded a summer retreat to the Moorish princes. Granada is now the seat of a university, and various manufactures. Its population is 80,000. On the coast of Granada is *Malaga*, a commercial city, situated in a rich district, producing almonds, figs, and oranges, which, with dried raisins and wines from the hills, and cork from the mountains, constitute its principal exports. Population, 52,000.

Cordova, on the Guadalquivir, is an ancient town, partly of Roman and partly of Moorish origin. Many of the buildings are in ruins, and it contains extensive gardens; the population, therefore, does not correspond with the extent of the city. The archbishop's palace, formerly the residence of the Moorish kings, and the cathedral, originally a mosque, ornamented with rows of cupolas, which are supported by 850 columns of jasper and marble, are remarkable buildings. Cordova has always carried on considerable trade, and has long been noted for its manufactures of leather. Population, 57,000. *Ecija*, with 35,000 inhabitants, and *Jaen*, with 20,000, are important manufacturing towns in the vicinity.

Cadiz, situated on a fine bay, at the extremity of a projecting tongue of land, is a well built and strongly fortified city, with an extensive commerce. The trade of the rich colonies of Spain in India and America, formerly centered in Cadiz, but after their separation from the mother country, the place sank in importance. It is now, however, a free port, and has somewhat revived. Population, 53,000.

Opposite Cadiz is *Port St. Mary*, and to the southeast is *San Fernando*, containing an observatory and the custom-house of the port of Cadiz. Each of these towns has 18,000 inhabitants. Fifteen miles northeast of Cadiz, in a rich district, is Xeres, noted as the depot for the excellent wines, called from this place, Sherry. It is a flourishing town, with 34,000 inhabitants, and contains a celebrated Carthusian convent. On the coast to the south of Cadiz is Cape Trafalgar, near which Nelson gained a celebrated naval victory over the united Spanish and French fleets; and to the north is the little village of *Palos*, from which Columbus sailed on his first voyage of discovery.

Saragossa, the capital of Arragon, stands upon both sides of the Ebro, over which there is a superb stone bridge of 7 arches. Before the memorable siege of 1808, its churches were remarkable for their magnificence and wealth, but, with the other public buildings, they suffered much injury at that time. The church of Our Lady of the Pillar is remarkable for its splendor, and for its miraculous image of the Virgin Mary, which attracts numerous pilgrims from all parts of the country. The university of Saragossa is one of the principal in Spain. Population, 43,000.

Santiago, or *St. Jago de Compostella*, the principal city of Galicia, has extensive manufactures of silk and cotton, and contains one of the principal Spanish universities. Its cathedral, consecrated to St. James, (in Spanish, *Jago*), the patron saint of Spain, is supposed to contain his remains, and is visited by great numbers of pilgrims. Population, 28,000.

Coruna, the capital of Galicia, is a flourishing and strongly fortified town, with extensive trade and manufactures. Population, 23,000. The harbor is spacious and safe, and is esteemed one of the best in Spain. Here are an arsenal and an ancient tower of great height and solidity, by some attributed to the Phœnicians, by others to the Romans.

Valladolid, capital of Old Castile, and the scene of many interesting events in Spanish history, is now much declined from its former splendor, and contains but 21,000 inhabitants. Its university is the second in Spain, and there are here 8 colleges and 46 convents. The royal castle, in which several of the Spanish kings were born, and the cathedral, are the most remarkable edifices.

The other principal places in Old Castile are *Sanlander*, a flourishing commercial town, on the northern coast, with 20,000 inhabitants; *Burgos*, with 12,000 inhabitants, containing a great number of churches and convents; *Segovia*, a very old town, with numerous Roman and Moorish remains, 13,000 inhabitants; and *Salamanca*, formerly the seat of one of the most celebrated universities of Europe, which has now lost its ancient importance.

Bilboa, the capital of Biscay, and one of the principal commercial towns of Spain, has 15,000 inhabitants.

Oviedo, capital of the Asturias, and *Badajoz*, capital of Estremadura, have each a population of 10,000.

Pampelona, a strongly fortified place, with 15,000 inhabitants, is the capital of Navarre.

Palma, on Majorca, is the capital of the Balearic isles, and has an extensive commerce. Population, 34,000. *Port Mahon*, on the eastern coast of Minorca, has one of the safest and most convenient harbors in the Mediterranean. It is strongly fortified, and contains a naval hospital, an arsenal, and one of the finest lazarettos in Europe.

Gibraltar is an important fortress, situated on a rocky promontory, at the entrance of the straits of the same name, and rendered impregnable by nature and art. The promontory is 7 miles in length, and nowhere half a mile in width, and the rocky wall rises precipitously to the height of above 1,400 feet. Every point bristles with batteries, which communicate with each other by covered ways hewn out of the solid rock. The town of Gibraltar stands at the foot of the promontory, upon a spacious bay, which forms a convenient naval station. Its commerce is extensive; population, 15,000; English, Moors, Jews, Italians, and Spaniards. This fortress was taken by the British in 1704, and has ever since remained in their possession.

4. **Agriculture.** The greater part of the land in Spain, belongs to the nobility, the church, the towns, or corporate bodies. The state of agriculture is wretched, and the implements of husbandry are very rude; hardly two-thirds of the productive soil is under cultivation. Hemp and corn are raised in almost all the provinces; olives and the sugar-cane are cultivated in the southern parts, and in this quarter may be seen large fields of saffron, rice, and cotton. Every part of the country yields wine. The rearing of sheep is an important branch of industry, and the wool is distinguished for its fineness. The Merinos, or fine-wooled sheep, pass the summer in the mountainous districts of Castile and Arragon, and the winter in the plains of Andalusia and Estremadura. They are driven this distance of nearly 700 miles, in 40 days, in flocks of 10,000. The Mesta, or society composed of the owners of the sheep, has the right to drive them over the land which lies on the route, and to feed them on the pastures; where the land is cultivated, the proprietor is obliged to leave a space 250 feet in breadth for their passage. The whole number of sheep in Spain is about 18 millions, more than half of which migrate annually.

5. **Commerce.** The foreign commerce of Spain is not extensive; wine, oil, fruits, wool,

and manufactured goods, are the principal articles of export. The coasting trade is very active and important; but the want of good roads, navigable rivers, and canals, is fatal to the internal commerce. The anchovy, tunny, and coral fisheries are actively prosecuted.

6. *Manufactures.* The system of taxation, founded upon production, and the privileges of particular classes and societies, tend to discourage industry in Spain; yet her manufactures are by no means inconsiderable. The most important are those of wool, silk, leather, and cotton. Paper, hats, soap, earthen, iron, and steel wares, brandy, &c., are also among the products of Spanish industry. The manufacture of barilla, from which soda is obtained, is extensively carried on in the districts bordering on the Mediterranean. It is made by burning a vegetable, which is sown for the purpose. When grown, the plant is pulled up, stacked, and dried. Circular pits are then made in the ground and heated; bars are laid across these, and the weed piled upon them, where it melts, drops into the pit, and hardens into a mass. The land for the cultivation of this plant requires much dressing.

7. *Inhabitants.* The Spaniard is compounded of various races, principally of the Celtic, the Roman, the Gothic, and the Arabic. In the north, the Gothic is the most pure, but in the south the Moorish predominates. The distinctions between people of the different provinces are equal to the general difference between those of separate nations. The Biscayans are light and graceful, though hardy; the Galicians, lofty in stature, and laborious; the Castilians, tall and dark; the Murcians, lighter in complexion, and there are many points of difference in the other provinces. But it is of the mass, that we have to speak; and those are the Basques, in Biscay and Navarre, descended from the ancient Cantabrians; the descendants of the Moors, chiefly in the Alpujarras; the Gypsies, who are scattered over Spain under the name of Gitanos; and lastly, and principally, the general inhabitants or Spaniards. The Spaniards are tall and generally slender; or less thick-set than the people of the north of Europe. Their complexion is an olive, their faces are somewhat long, their hair is black, and they have,

almost universally, brilliant and piercing eyes. The women, if not models for beauty, are distinguished for their attractions; but these arise rather from glow of sentiment, ardor of feeling, and wonderful grace of motion, than from regularity of feature, or the training in the arts of pleasing, which is a part of female education in France.

The classes are, generally, the nobility and the plebeians; and in no country is the accidental difference of birth so strictly enforced: a hidalgo, or a "son of somebody," is one of the small nobility, without a particular title; and



Serenading.

nine promotions in the army are made in favor of the nobility, before the tenth chance is open to the brave sergent, who has, perhaps, led the forlorn hope, and mounted the breach. The titled nobility consist in dukes, marquises, counts, viscounts, and barons. These are chiefly styled "illustrious," and addressed as "their eminences," and they prefix the Don to their Christian names. The nobility are ambitious of having in their family several "hats"; or of uniting in their own person, the right of several titles, each one of which gives the privilege of wearing a bat in the presence of the king. Some have, by inheritance or marriage, the right of wearing 8 or 10 hats. A nobleman "on four sides," is one whose parents, their parents, and their parents' parents, were all noble; and such only are knighted. But as the proof of the lineage comes through the notaries, it is not difficult for any rich aspirant for honors to obtain a favorable certificate. A person of a pure lineage, without Jewish, Moorish, or heretical blood, the law calls "an old Christian, without taint." It is a calamity for even a peasant to have had a remote ancestor a Jew, an Indian, an African, or a Moor. To such, even the social religious fraternities are closed. Where the original of a family must be so pure,

creation of nobility, by patent, is rare. There are 4 military orders of knighthood, those of St. Jago, Calatrava, Monteza, and Alcantara.

8. *Dress.* The dress of the different provinces is, in many instances, various; though some peculiarities of costume run through all Spain. Generally, the cloak is worn, and it is universal in Castile; it is very large, and so full, that one end is thrown over the shoulder. It is said, that none but a Spaniard can wear it gracefully, and he draws it into many elegant folds. The very children wear it, and are often encumbered with it at play. The females seldom appear in public, in any but the national dress; the color of which is principally black. The priests watch, with great jealousy, all innovation in dress. The mantilla is a black scarf, of various degrees of richness, thrown over the head, yet so as to display a large and costly comb. It reaches to the waist. Few ladies wear veils, except at mass. The *basquiña* is a black petticoat, and it is as general as the mantilla, or shawl. Neither bonnet nor ribands are worn, though in carriages, and at some assemblies, ladies may be seen dressed in the French mode. The fan is carried by all females; as well by the lady in her carriage, as the servant, with a bundle, in the street. It is an instrument of fascination, in the hands of a lady, and all its motions are graceful; it has even a language of its own, which is said to be rich in terms



Spaniards.

of favor and endearment. It is a great study in a Spanish female, to set out her foot to the best advantage; and the neat stocking, and small shoe, are, therefore, important points of dress.

The various ecclesiastical costumes, the common Spanish dress, and the costumes of the provinces, give a lively appearance to a concourse in Madrid. The Catalan wears a velvet jacket, with silver buttons, and long pantaloons, from his shoulder to the ground; and the Valencian, loose breeches of linen, reaching from the waist to the knee. He also wears a long sack, or *manta*, unlike the full cloak, in which he partially wraps himself. In Castile, the peasant wears a black-velvet cap, which exposes his high, manly forehead. He wears, also, a jacket of black sheepskin, with the wool outward; light breeches, sustained by a girdle about his waist; gaiters of embroidered leather, and stout, nail-shod shoes. In the north, the red woolen cap is common, which hangs partly down the back. In La Mancha, the tall *montero* cap is worn; and in the south, the low-crowned Andalusian hat, with the wide rim turned up.

9. *Language.* The Castilian is so widely spread over Spain and the colonies, that it is called the Spanish language. But in Catalonia and Valencia, the Provençal language is general; and in Biscay, the Basque, a harsher dialect. The Spanish language is rich and sonorous, and admirably adapted to poetry. It is founded on the Latin, which is better preserved in it than in the Italian. It is mixed with the Teutonic and the Arabic. The approved pronunciation, is that of Castile.

10. *Manner of Building.* There are noble edifices of Roman, Gothic, and Arabic architecture, which are mentioned under the head of towns. There is some variation in building, in the different kingdoms; but the general form of houses is a quadrangle, with flat roofs, and an area in the middle, surrounded with colonnades, or galleries. In the centre, is often a tree, or a fountain; and in summer, a canopy is drawn over the top, and kept wet, to cool the air. Sometimes the lower windows have grates, or what the French call *jalousies*. There are few chimneys in the south, and the rooms are warmed by a brazier, or pan of charcoal.

11. *Food and Drink.* The Spaniards delight in mixed dishes, in which there is no want of pepper or garlic. The *olla*, or *puchero*, is a universal dish: it is a mixture of beef, chicken, peas, other vegetables, garlic, and pepper. Pork is generally added, and it is an article of food as universal as in Mexico and Brazil. The Spaniard has a catholic pride, as well as a pleasure, in eating it; as it shows that he is no Jew. Chocolate is general, at breakfast, with a little toast, or a roll, but neither milk nor cheese are much used. The bread is unrivaled; it is more than a mere staff to support life; it is so light and sweet, that it is better than cake elsewhere. In the markets, the fowls are cut up and sold in separate pieces; and a row of wings, breasts, legs, &c., are hung together. This is to supply materials for the *olla*. Mutton is very general, and rabbits are more used than in other countries. The food of the poor is meagre, and includes acorns and chestnuts.

When a Spaniard gives a dinner, which is a rare occurrence, it is cooked at the inn, and knives, forks, and dishes, are sent with it, for there is no large supply of these in Spanish houses. It is not proper for a guest to accept, at once, so important an invitation. He replies, by giving "a thousand thanks," which is declining respectfully. On the second asking, he says to his inviter, "do not engage in such a concern;" and it is only the third invitation, which he feels at liberty to accept.

The wines of Spain are hardly inferior to those of France; and if the best of them are unknown to commerce, it is only because they are raised in the interior of a country, that is without roads or canals. The wine most esteemed is the Valdepeñas, raised in La Mancha; but the Sherry, the Malaga, and the wines of Catalonia, are more known out of Spain. The Sherry is a costly, but excellent wine. The wine is often kept in bags of skins, and these are invariably the bottles. The manner of drinking, is to throw back the head, and pour the liquor into the mouth from a distance. One leg of the skin is prepared to be the mouth of the bottle.

12. *Diseases.* Fevers are not uncommon, but there are few peculiar diseases. In the humid province of the Asturias, leprosy is common, under various forms. Some of the lepers seem covered with white dust, like millers; others are black. In some, one leg swells to an enormous size; in others, the hand or face. In the Asturias, there are 20 hospitals for lepers. The remedy of Sangrado survives, in spite of the satire of Le Sage, and bleeding is resorted to as a general remedy, and with little better success, than under the administration of Gil Blas. The surgeons and physicians have little skill; they are appointed by the municipality of towns, so that there is no competition. The municipality is appointed by the king, so that physicians may be established against the will of the people. They have a fixed salary, which is generally paid by a tax on brandy.

13. *Traveling.* Spain is little visited by those who travel for health, or pleasure; and Townsend makes it one of the requisites of a traveler here to have a good constitution. The Spaniards have no favors to foreigners, especially those of the Protestant religion; and the roads are of the kind generally found in the infancy of civilization. There are but about 12 good roads in Spain, but these are made upon the principle of McAdam, which has been followed there from time immemorial. The principal of these roads, are from Madrid to Bayonne, to Barcelona, and to Seville. From Madrid to Toledo, a large city distant but about 100 miles, there is no road, and the route lies through fields, woods, and rocks. This want of internal communication is the bane of agriculture and industry, and the foe to all improvement. It however preserves the natural and local character unmixed and unaltered. On the principal roads the traveling by post is not disagreeable, nor is there anything in it worse than in other European countries, except greater danger from robbers. The diligences are found only on the principal roads; and they are as good as the same vehicles in France. They are drawn by seven, eight, or nine mules, at the rate of seven miles an hour, and the muleteers are punctual and accommodating. Every mule has a name by which the muleteer addresses it, as Coronela, Arragonesa, &c. The chief muleteer is called *Mayoral*, and the postilion *Zagal*. The mules are obstinate to a proverb, and the Zagal has often full employment in beating them. He seats himself on one in the rear to belabor the other next before it. The mules are generally in good case and well used. The *galera* or galley, as it is not unaptly called, is a long, covered wagon, for passengers and merchandise. The bottom is a network of ropes, which in some degree supplies the place of springs. On many routes there are no other modes of traveling, but on horseback, on mules, or the more humble animals called *borricos*.

In the Spanish language there are no less than six sounding words, to express the distinctions of public houses of several grades of accommodations. There is, however, little difference between the best and worst, or rather, all are bad, and there are, not even in cities, any tolerable hotels. On many of the roads the inns are so unfurnished, that the regular answer to the question for dinner is, we can give you "what you have brought with you." At no inn is the traveler welcomed by either host or servant; no one asks his wants, or shows him into the house. He is left to grope his way into the kitchen, where, if he is cold, he may join the circle of muleteers, standing around the fire, and if hungry, he will not be served so well, or so soon, as these regular customers of the host. The hall is chiefly used as the sleeping-room, and the beds are arranged around it. In some provinces there is a tariff of prices fixed by law, together with an allowance for the *ruido della casa*, "noise of the house," or attendance. The price of a slight breakfast of chocolate and bread is thus fixed at two reals.

For a late and more substantial breakfast, like the French *déjeuner à la fourchette*, eight reals are charged, and for dinner, twelve reals. The provisions, or equivalents, are specified. The dinner, it is ordered, shall consist in a soup, an olla of fowl, bacon, beef, sausage, beans, and pot herbs, a fritter, or ham and eggs, two dishes of chopped meats, a pudding, peppers, haricots, or beans, a roast, a salad, a dessert of three dishes, a glass of brandy, and bread and wine "at discretion." The bed is four reals, and must consist of a mattress of straw, and another of wool, two clean sheets, two pillows, a quilt, and a blanket.

The traveler in Spain may have, from one end of the land to the other, the feeling of dignity, that danger is said to bestow; for there is no part free from robbers. They do not often murder unless they are resisted, yet the traveler on whom they find little to plunder, seldom escapes without a severe beating. It is, therefore, not uncommon to carry a silver watch of small value, and a few dollars in silver, to be surrendered as a peace-offering; this is one of the usual expenses of the road; and the rest of the money is taken in drafts. On the receipts that are given at some of the diligence offices, a caution is indorsed, that the traveler should not take too much money, on penalty of being answerable for any consequent damage done to the diligence by robbers. There are often guards to the diligences, but they have sometimes an understanding with the robbers, and the danger of the traveler is thought to be in proportion to the strength of his escort. Some diligences compound with the robbers, who are sometimes well known, by paying black mail, for security. The robber, who has followed for years his trade of violence, is, it may be, a dweller in some hamlet, where men know more of his trade than they will testify; sometimes when outlawed, he surrenders himself upon pardon, and becomes a trusty guard to the diligence. The "Young American" had, in his single "Year in Spain," the chance to be twice robbed; once by such gallant cavaliers, that they scorned to touch the lady's baggage, and again by miscreants so hardened, that they murdered the muleteers, probably because they belonged to the same village with themselves. In the dangerous defiles, crosses are erected close together, each marking the place of a murder, and bearing the inscription, "here they killed John, Thomas," &c. The established formula of the robbers is to call to each passenger "*a tierra ladron*," "on the ground, you thief"; where the sufferers lie quietly on their faces, while they are pillaged.

14. *Character, Manners, and Customs.* For centuries there has been little change in the Spanish character, and every inlet to innovation or improvement is closed. There is a saying, that Adam returned to the earth, where he recognised no country but Spain. "Ah, this," said he, "is exactly as I left it." There is a tradition too, in Spain, that he was king of the country, and that his capital was Toledo.

The Spaniards are an honorable race, and in Spain the spirit of chivalry is not extinct, though the institutions have passed away. The national songs and ballads, and the popular romances of chivalry, but particularly the former, have a great influence in forming the character; they are sung by all; they are of high poetic excellence, and rich in the sentiments that incite a Spaniard to die for his mistress, his country, or his faith.

Pride and courtesy are inseparable from a Spaniard; but it is not the pride of an Englishman; it is the accompaniment of a lofty character, in which meanness cannot exist. He is not deceitful, for falsehood is a part of meanness or fear, and he has neither. His individual self-respect is associated with a pride for his country; "we are not all old Castilians," is his saying, when he would reprehend an act of baseness in another. It is not without some reason, that he boasts of his provinces, where all are nobles, or gentlemen. The very peasants have great independence of spirit, and dignity of manner; and, though they readily admit equality, they acknowledge no superiority. The poorest laborer seems to think, that fortune only has depressed him from his proper station, and he raises his soul above his humble condition; "as good a gentleman as the king, only not so rich," is the national proverb. But the proudest Spaniard exacts no greater tribute than he is ready to pay. The courteous Don of Cervantes was in this, and other respects, a picture of his countrymen; punctilious in rendering courtesy, and strict in exacting it. There is much of the national character embodied in Don Quixote and his Squire; and this chivalric phase of madness, is probable and natural in Spain, though it would not be so in any other country.

The humblest person in Spain, will take offence to be addressed under a lower title than Señor or Maestro. No circumstances or reverses can deprive a Spaniard of his dignity of carriage. The very beggars are so easily repulsed, that they seldom repeat a solicitation. The characteristic reply of a mendicant, who was advised to work, was, "I asked your char-

my, Sir, and not your counsel." The Spaniards are slow to change ; and the want of roads prevents innovation. It is well for the people, that, under every disadvantage, they have retained so much of their ancient character ; they have fallen from their high estate, and they have fallen upon evil times, but they are still the same invincible, inflexible race with their ancestors, of the age of Cortez and Pizarro. A thousand heroic incidents in the Guerilla warfare, and the glorious defence of Saragossa, were outbreaks of the national spirit. Individually, though not collectively, the Spaniards still resemble their ancestors of Arragon, who promised their king to obey, if he would protect their rights, "and, if not, — not;" *y si no, — no*.

The Spaniards are distinguished for good faith. One of their kings, who wished to confiscate French property, published an edict, giving half to the factors who would inform ; but in all Spain there was not found one dishonest but the king, or who, when thus tempted, would betray his correspondent. Oppression has debased the Spaniards less than superstition. The king could not for a day oppress the subjects which it is his duty to protect, but for the aid of the clergy, whose influence over the people commences at childhood, and ends only with life. The clergy, though ignorant, have yet the instinct of ignorance, and perceive, that their power would be reduced in a people brought up in knowledge and virtue. Every effort of genius is therefore discouraged, for philosophy is no friend to fanaticism, and poetry has noble aspirations. The schools are in ecclesiastical hands, and the confessional gives even a greater influence to the clergy. To a priest no door is closed, and no secret is hidden. The bigotry of the Spaniards is, unfortunately, beyond all parallel, and some of the effects of it will be described under the head of religion.

The Spaniards have an hereditary contempt for trade, and agriculture cannot flourish in a country without roads. There are few chances, then, that labor will have its reward ; the religious holidays are numerous, and thus a people of great energy of character, and an ardent temperament, have little employment, and no resource from ennui but in pleasure, or frivolous amusements. Their very virtues are politically oppressed, while their vices may lead them to honor and preferment. To be honest and true, to express their opinions boldly and freely, will but lead to captivity or banishment ; but to dissemble in religion, to feign bigotry if they have it not, to show outward reverence to friars whom they may despise in their hearts, is the much traveled road to safety and shame. There are, indeed, many who neither reverence a dissolute monk, nor honor a fanatic and faithless king ; but they conceal their sentiments, as they love liberty and life. The Spaniards have been called indolent, but it is a calumny ; and yet many of them live in idleness ; for few men will much care to sow, where they may not be sure to reap. Pleasure, then, is a pursuit, especially among the higher classes, and the consequences are indeed lamentable. Jealousy, which our romances have represented as the passion of a Spaniard, is unknown, or it exists only between the matron and her *cortejo*. The liberty of married females has no limit but their own discretion, a frail barrier against a defective education, a pernicious custom, and an ardent temperament. This evil is deplorable ; for the Spanish females are, in many respects, worthy of admiration ; and when they have the advantage of a correct training, and indeed often when they have not, they prove themselves, both as wives and mothers, worthy of a fellowship with Portia and Cornelia. They are generous, vehement, and self-devoted ; they love like Othello, "not wisely, but too well." They have all the elements of a great character, and under favorable circumstances, there are no women that walk through the world by the side of man, to cheer him in sorrow, and excite him to duty and honor, that are comparable with the dames of Spain. The gallantry of a Spaniard is proverbial ; his salutation to a lady is, "Madam, I am at your feet," and his whole bearing to her is one of deference, humility, and devotedness.

In Spain, those whose duty it is to be the censors and conservators of public morals, are the corrupters. The flock is indeed unhappy, when the shepherd has an understanding with the wolf. The celibacy of the clergy has made them dissolute, and they have spread depravity over the land. Of all classes in the country, perhaps that which has the least pretensions to purity is the clergy. Ferdinand would not sign a warrant for the execution of an ecclesiastic. It is but a few years since, that a priest, who had conceived a passion for a lady that was contracted to another, murdered her at the confessional. The ferocious wretch, who afterwards expressed his joy, that another should not possess her, was punished by an easy imprisonment.

The Spaniards, with all their ardor of character, are perhaps the most temperate people in Europe ; and a traveler may pass through Spain and not see one intoxicated. They have,

unfortunately, less control over passion than appetite. They are irascible and vindictive, both from temperament and climate ; it is said, that during the prevalence of a certain wind, which is peculiarly disagreeable, the number of murders is increased. Where the laws do not secure justice to every individual, men become both their own protectors and avengers. It is not uncommon in Spain to see men armed with guns, to protect their property and persons ; and long clasped knives are almost universal. It is with these, that so many murders are committed. In 1826, there were 1,233 convictions for murder, 1,775 for attempts to murder, and 1,620 for robbery, while the actual crimes were perhaps many more than the convictions. At Seville, is a hospital for the relief of such as are wounded in sudden frays, or by assassins ; the seat on which the patient is placed is called the "bully's chair." A traveller relates, that in one week of his residence, 21 were carried to this hospital, exclusive, probably, of those who were killed outright, or who had homes of their own. The murders are the most frequent in the south of Spain.

It is needful to remark, that the foregoing description of the Spanish character is very general, and that, in the various provinces, there is as much difference as among different nations. The Andalusians are cheerful, yet boastful and irascible. The Valencians are light, cheerful, and vindictive ; and the hired ruffians and assassins, that were formerly common, came principally from Valencia. The Catalans are independent and laborious ; the Murcians, indolent and superstitious ; the Castilians grave, just, and honorable ; and the people of Biscay, Navarre, and Arragon, are independent, frugal, and attached to liberty.

The aspect of social life is widely different in France and Spain ; the principal of the social meetings in Spain are the evening tertulias, where the lady of the house receives a few regular visitors. It is to the lady, that all visits are paid, and the visiter may go many times without making the acquaintance of the husband. There is little of country life, like that of the gentry in England. The few grandees, however, who live in the country, are upon terms of great familiarity with the peasantry. The Spaniards have few of the observances of hospitality, that are general in the north of Europe ; they seldom invite a stranger even to dine. They, however, say to him, that their houses, and everything they contain, are his ; and having been thus introduced, he may always call without ceremony, and enter without sending in his name. When a person knocks at a door, it is demanded from within, "who is there ?" to which the established reply is *gente de paz*, or "peaceful people." Peasants and beggars call at the doors, *Ave Maria*, to which the reply from within is *sin pecado concebido*. This is a general formula in several parts of Spain.

15. *Amusements.* The Spanish amusements are peculiar. The Spaniards are the gravest people in Europe, except the Turks, and public dancing is, in Spain as in Turkey, a favorite amusement. The Spaniards, however, dance with much grace and animation in their social circle, which the Turks consider disgraceful. But it is the *bolero* or *fandango*, which is the great national dance ; and the influence of it over a Spaniard is marvellous. It has been supposed, that, should the bolero be struck up in courts or churches, the very judges and clergy could not refrain from joining in the general tarantula excitement. The bolero is, in fact, a new edition of the fandango, in which the exceptionable parts are omitted, but all the gracefulness is retained. It is danced with castanets, and the Spaniards are indebted to the Moors for it. It is performed by two persons, who stand opposite each other ; and advance, retreat, and pursue. The female flies, like Galatea, to the willows, that she may be pursued. There is a ruinous degree of gaming in Spain, and the government furnishes the aliment by its lotteries. The tickets are hawked about the streets by the blind, who are supposed to attract to them the favor of fortune.



Bull-fighting

The bull-fights are derived from the Romans ; and there are several ancient amphitheatres extant, of great magnificence. This barbarous amusement has a deeper hold upon the Spaniard than the bolero or gaming. The arrival of a "bull-day" convulses the whole city ; and dense crowds collect around the arena, too poor to pay for admission, but too zealous altogether to relinquish the amusement. They learn the events within, and echo the cheers of the

more happy spectators. The bull-feasts are often dedicated to St. John and the Virgin ; and the gains are bestowed in charities. The fights are held only in summer, as the arenas are open, and the bull has then the greater courage. The worst places in the arena cost 2 or 4 reals, and the best a dollar. In some places, as in Valladolid, the public square is the imposing arena ; the streets are shut, and balconies are erected along the houses. After a procession of all the combatants, who are to engage the bull, 2 alguazils advance, with great gravity, to the president, to ask permission for the sports to begin. The arena is then cleared, and the door is thrown open for the bull to come forth, when he is received with deafening shouts. He advances to the centre, and stands amazed. He has little time, however, left for wonder. The *picadores*, combatants on horseback, wait for him with their long lances. Theirs is a service of danger, though so little disgraceful, that the *grandees* have followed it. Sometimes the bull darts upon them ; at others, it is necessary to excite him to rage. He braves the wounds of the lance in his neck, and attacks the innocent horse, who still continues the combat, though he may be gored so dreadfully, that he treads upon his own entrails. The horse and rider are often overthrown, when the combatants on foot divert the bull's attention, by shaking before him pieces of colored cloth. Sometimes, however, the animal pursues them, and then they require the best of their speed ; they leap the barrier, 6 feet in height, but a moment before the bull dashes his horns against it. So narrow are their escapes, that Townsend thought, that the men actually raised themselves on the horns of the bull. The animal often attempts to clear the barrier, and he sometimes succeeds. This is the signal for speedy retreat to the spectators, some of whom, however, have been killed. Sometimes several horses are killed beneath the same rider.

The next act in the tragedy, is commenced by the *banderilleros*, who go before the bull, and when he plunges at them, step a little aside, and stick into his neck little darts, having fulminating powders, which explode, and drive the persecuted animal to frenzy. This is a dangerous part to perform, as the horn of the bull, in his plunges, passes within a few inches of the *banderillero's* breast. Exhausted, at length, by the loss of the blood, that streams from numerous wounds, the last moment of the brave animal approaches, for the hard laws of the circus are, that he shall not go forth alive.

The president gives the signal for death, and the *matador* advances with a long dagger in one hand, and in the other a flag, which he waves before his adversary. Both stop and gaze several minutes at each other, and the concourse are silent as the grave. The fight is now to become a single combat, in which one party, at least, must die. The animal recalls his energies, makes a last desperate plunge at the *matador*, who steps lightly aside, and strikes his dagger into his adversary's neck, with so true an aim, that the spine is divided, and the animal falls bleeding upon his knees. The circus swims before his glazing eyes, and he falls dead,

"Ere ceased the inhuman shout, that hailed the wretch who won."

16. *Education.* There are few establishments in Spain, for the diffusion of the first rudiments of knowledge. The lower classes seldom learn to read and write ; and those above them, are as seldom instructed in anything but reading, writing, and arithmetic. Those who are designed for the learned professions, attend a Latin school for 3 or 4 years ; but classical literature has made little or no progress, and Greek has been for several centuries almost unknown in Spain. There are 8 universities, but they are very far behind the literary institutions of other European countries. There has been little encouragement for education, or even safety for learning, in a country, of which it has been truly remarked, that to learn the names of its best scholars and finest geniuses, we need only to go to the dungeons of the Inquisition. There are many associations, called learned societies. There are 12 public libraries, besides those belonging to the monasteries. There are botanic gardens at Madrid, Cadiz, Cartagena, and St. Lucar ; a cabinet of natural history, coins, and antiquities, at Madrid ; and several observatories, as at Madrid, Ferrol, &c. So long as the monks controlled everthing, it was their policy to spread among the people nothing but ridiculous legends, calculated to increase their superstition.

Under the same rule the newspapers were equally barren. There were but very few, and those small. But since the accession of the young queen, and the political revolutions which have followed that event, matters in this respect are much changed. Newspapers have sprung up in all the principal towns, and especially in the capital, of all shades of political

opinion, in which all public questions are discussed and often with no little violence. Still there are great restraints on the freedom of the press.

17. *State of the Arts, Sciences, and Literature.* In the time of the troubadours, and in the middle ages, there arose, in Spain, a profusion of ballads and songs. Of the ballads concerning Rodrigo Diaz de Vivar, or the Cid, alone, there are about a hundred. After the conquest of Naples, the introduction of the Italian literature gave a better form to the literature of Spain. Spain has never produced an epic poet of much eminence. The drama is exceedingly rich, though irregular; it is a mine, to which the writers of other nations have freely resorted. The Spanish division of the drama is peculiar; it is not into tragedy and comedy, but into plays *divine* and *human*. The former, includes legends of the saints, &c. The latter, includes historical or heroical plays, comedies "of the cloak and sword," founded on the intrigues of high life, and other comedies, in which the characters are rogues, pickpockets, and their ladies. Lope de Vega excelled in all these, and his principal plays are contained in no less than 25 volumes. But Don Pedro Calderon de la Barca, is the boast of the Spanish theatre. He wrote 127 dramas, besides an incredible number of smaller pieces. There are a great many of the romances of chivalry; and one novel, ridiculing them, has pervaded the world. Don Quixote is unrivaled in wit, philosophy, and the painting of human life and character. There are few writers at the present day, and the sciences are almost entirely neglected. Natural philosophy, chemistry, and mathematics, are, in Spain, centuries in arrear.

The Moors, in Spain, were so polished and gentle a people, that their expulsion was a national calamity. They had a library at Cordova, of 600,000 volumes, and there were 70 public libraries in the Andalusian kingdom. This was at a time, when the rest of Europe was sunk in the deepest ignorance. Many Spanish Jews, of great learning, flourished at the same time.

Painting has been more successfully cultivated, than the rest of the arts, and the Spanish school is much celebrated. Ribera, better known as Españoleto, excelled in the most perfect representation of sufferings and of sorrow, such as are furnished by the death of martyrs. Velasquez was so excellent in portraits, that he is ranked with Titian and Vandyke. Murillo, who never left Spain, is yet correct, and has great finish and warmth of coloring. Morales is called the divine, from the excellence of his heads of Christ. The Spaniards have a passion for music, and many, in all grades of life, perform on some instrument, generally the guitar.

The national airs of Spain are numerous and beautiful, though her composers are few in number; and the chief singers at Madrid are imported from Italy. The music of Spain partakes of the character of her language, described, by a modern writer, as being "grave and decent, like the dances of ancient chivalry." It is as pathetic as the Italian, but it has an energy and romantic character, which the former has not. It speaks of a more mountainous country, of a more high-souled and chivalrous people. The Italian airs breathe of little but of love. The songs of Spain are mingled with romance, devotion, and glory, as well as tenderness. Music is not cultivated, as in Italy; but it is the amusement of all ranks and conditions in Spain. The muleteer sings, to beguile the long hours as he speeds on his way, and his rude carol is mingled with the wild jingling of the bells. The peasants sing, as they dance the seguidilla, to the sounds of the castanet and guitar. The cavalier joins his voice to the music of his guitar, when he serenades his high-born beauty beneath her latticed window.

The guitar is universally played by the Spaniards; and suits well with the wild, romantic melody of the Spanish airs. The Moorish ballads, which remain, are mournful and tender, breathing the very spirit of gallantry and impassioned devotion. The conquest of Granada, called forth all the musical strains of her minstrels, whether in lamentations over the fallen city, or in reproaches of the conquerors; and the ballad entitled "The Siege and Conquest of Alhama," had such an effect, that it was forbidden to be sung by the Moors, on pain of death, within the walls of Granada.

18. *Religion.* The religion is strictly Roman Catholic. The number of archbishoprics is eight, and there are fifty-one bishoprics. The archbishop of Toledo, is primate of Spain, and his income was nearly \$450,000. The ecclesiastics of all classes, including monks and nuns, were 188,625, but the number has been much diminished by the dissolution of the monasteries. The king nominates to all ecclesiastical dignities, and even to the smaller benefices. The clergy are rich, ignorant, and dissolute. They were the most powerful body in all Spain, but their influence is diminishing. They retained a strong hold upon the favor of the lower class, by distributing from monasteries daily alms or food to the poor. Yet they gave back but a very

small portion of what they received, and a monk passed a life of indolence and abundance in Spain.

"I'll give thee, good fellow, a twelvemonth or twain,
To search Europe through from Byzantium to Spain;
But ne'er shall you find, should you search till you tire,
So happy a man as the barefooted friar.

"He's expected at noon, and no wight ere he comes,
May profane the great chair or the porridge of plums;
For the best of the cheer and the seat at the fire,
Is the undenied right of the barefooted friar."

In Spain, however, the clergy have greater privileges than those recounted in the song. They hold the power of superstition over ignorance, and make it the means of an immense revenue. There is not in Spain a wretch so poor that he does not pay something to the church. The Bull of the Crusade is a document more generally sold than stamps are in England. It is founded on a supposition, that there is a continual war waging with the infidels. The virtues of this bull expire at the end of a year, when it is necessary to purchase another. One half of the proceeds go to the king, and never was bigotry so well taxed, or an imposture more cheerfully paid. This bull, among other things, concedes permission to eat eggs, milk, and butter during Lent; and no priest is so ignorant of his craft, that he will administer the sacrament, or grant absolution to any one who has not the Bull of the Crusade.

The Flesh Bull is more expensive, as it is intended chiefly for the rich, who are made to pay roundly for eating flesh in the interdicted seasons. The Bull of the Dead is a passport required at all burials, and without it no priest will officiate. Marriages, christenings, absolutions, and funerals, swell the wealth of the church, and there is a profitable trade in masses. Those who die, pass their last hours under the eye of the church, and the ghostly advisers often suggest a bequest to the convent, to found a perpetual mass for the departing soul. The friends of the deceased readily purchase masses to shorten his abode in purgatory. Generally, a Spaniard is very tender in this point, and never refuses to give when solicited "for the souls." Societies are formed in every town for these suffering spirits, and there was a lottery scheme invented for them, in which the pious adventurer by performing the penance inscribed on his ticket, might transfer the merit of it to some soul in purgatory. The Pope has established certain days when every Spaniard may, by kneeling at five different altars and praying for the extinction of heresy, release the soul of a friend. The name of the soul must be mentioned, to prevent mistakes; but, if not, the prayer is addressed "for the most worthy and the most disconsolate."

The revenues of the clergy are swelled by the sale of relics, consecrated heads, crucifixes, scourges, &c. The relics are numerous; generally the bones of saints. At Oviedo the highest church dignitary shows the rod of Moses, the mantle of Elias, the olive branch borne by the Saviour, a great part of the cross, eight thorns of the crown, a vial of the Virgin's milk, and the hood she gave to the archbishop of Toledo.

The Virgin Mary is the great Diana of the Spaniards, and alms are often solicited for the "queen of heaven." Commercial partnerships are entered into, and a share of the profits set aside for her honor. An insurance company which entered into a partnership with several of the saints, had sufficient faith to insure a West India fleet in time of war, when insurance had been declined in Holland at 50 per cent. The fleet was captured and the company broken. The most usual penances are flagellations, hair shirts, and bracelets, with points of wire on the inside. Every Friday there is a penitential scene in many of the churches. After an exhortation, the lights are suddenly extinguished, and every penitent scourges himself according to what he supposes to be his deserts. The silence is interrupted only by weeping and sighing, and the blows of the scourge.

Whenever the little bell is heard, which accompanies the host or sacrament going to the dyag, all who hear it kneel and utter a prayer. At theatres, balls, and in the mud of the streets, there is no exemption; all who hear it, must remain kneeling till the sound is past, and to refuse would incur danger from the populace. The play stops, and the actors kneel upon the stage, as well as the audience in the boxes; when, however, the sound is heard in bed, it is only necessary to sit upright.

The Inquisition has been so intimately connected with the religion of Spain, that we shall give some account of the tribunal which punished thoughts with more severity than it is ever

right to inflict upon crimes. It is, however, due to the Spaniards to say, that, though bigoted to a great degree, they resisted the introduction of the inquisition. They murdered the Dominicans, stoned the inquisitors, and stabbed them at the foot of the altars. There were such tumults, that the whole power of the church and authority of the king were barely sufficient to restrain them. After Castile was united with Arragon, by the marriage of Ferdinand and Isabella, the modern inquisition was established over Spain, from the year 1481. The king was a bigot, but in this he had not even the excuse of bigotry; he thirsted for the property of the Jews. It was a successful, and to him not an objectionable, way of filling the treasury. The gentle and good Isabella, the friend of Columbus, the protector of the Indians, refused to permit the inquisition to be established in Castile; but her confessor, Torquemada, overcame her scruples. The first destruction scattered by this infernal engine was among the Jews. A hundred thousand families emigrated, many professed Christianity, and almost all the new Christians began to emigrate to the lands of the Duke of Medina Sidonia, Marquis of Cadiz, and other noblemen. Torquemada, however, the head of the inquisition, was too thirsty for blood, to let them so easily escape; and it was declared, by proclamation of the holy office, that emigration should be held as sufficient proof of heresy. The proclamation ordered the noblemen before named to arrest the flying, and sequester their goods. The prisoners were more than the numerous convents could contain. Four days after the establishment of the inquisition in Spain, six of the condemned were burned, and ten more in a few days.

In less than six months, 298 of these unfortunates were burnt at the stake in the single city of Seville. During the same time, more than 2,000 of the condemned were delivered to the flames in other parts of the province. Among these were, of course, many persons of great wealth, and their riches only led them into danger. The prefect of Seville, to save time in the numerous executions, erected without the city a scaffolding of stone, on which were raised four hollow statues of plaster. In these, the newly relapsed Christians were slowly burned. This scaffold was extant until the revolution of 1820.

Among the articles or laws of the inquisition, one decreed, that voluntary confessions should be written down in the presence of the inquisitors; this enabled them to compel the confessor to denounce others whom he might suspect of heresy; and thus this act of grace became an act of accusation. Another law made it necessary to ascertain the time of falling or relapsing into heresy, that it might be known what portion of goods belonged to the treasury. Many of course lost the dowry of their wives, when these were paid after the heresy of their fathers-in-law. The inquisitors were empowered to condemn all who had been reconciled, provided their repentance seemed pretended, so that life depended on opinion. Half proof subjected a man to the trial; if, under torture, he confessed, and afterwards confirmed his confession, he was condemned; if he retracted, he was subjected to a second torture. An entire copy of the testimony was never given to those accused. All persons summoned, and failing to appear, were condemned. The conduct of a deceased person was examined, and when a posthumous conviction followed, the bones were dug up and burned, and the whole estate confiscated in the hands of the heirs. For a relapsed heretic, no promises of faith were sufficient. The inquisition never pardoned him; and the only mercy allowed was to strangle him before he was burned. Many of these regulations were made to gratify the grasping disposition of the king, and the king, in return, was willing to barter his subjects' lives to the monks. The accused never saw those who testified against him. There was the mockery of a counsel allowed, yet he was not permitted to be seen alone, or to speak but to confess. Besides, what counsellor would dare defend a prisoner in the inquisition? Suspicion was divided into three classes; and the prisoners were registered as lightly suspected, strongly suspected, and violently suspected. The light suspicion subjected its object to stand upon a scaffold with his head uncovered, to walk in the procession *en chemise*, with bare feet and crossed arms, to be scourged by the bishop or curate, to be stationed at the church gate till reconciled, and to carry on his right breast two crosses of a color different from that of his dress. This penance lasted 3 years for the first class, 5 for the second, and 7 for the third.

The proceedings in these courts had little delay, though there were many long imprisonments; when there was any process, it was a summary one. In one year, the inquisition of Toledo finished 3,327 trials. There were but two inquisitors and two registers to perform this labor. When the tribunal had become well established, it had its spies all over Spain. There was no safety, either in heresy or faith; to have an enemy, or to have wealth, was dangerous to the best citizen and the most faithful Catholic. It was the reign of terror and sus-

tion ; the Romans, under Tiberius, were less to be pitied than the Spaniards, under Ferdinand and Torquemada. It is a satisfaction, however, to know, that the fanatic monk felt deeply what he had deserved from the people. He lived in constant fear of death ; he had always on his table a unicorn's horn, to detect the presence of poison ; and when he moved, he was surrounded by guards. He passed 18 years as Inquisitor-general ; caused 10,220 persons to be burned, and 97,371, to be otherwise punished, and their estates confiscated.

The prisons of the inquisition were so damp, that the mats and cloths soon decayed. The prisoners were literally crammed in them ; those who came forth were walking skeletons, while others confessed all they were charged with, to escape from such confinement by death.

In the *chamber of torment*, every person accused, who refused to confess, received his trial. This was deep under the ground, and lighted by two flickering flambeaux, which, with their unsteady light increased the gloom of the dungeons. The inquisitors and executioners were clothed in long robes of sackcloth, and their faces were covered with hoods of the same, having holes cut for the eyes. The poor sufferer could not even look up in a human face, for a vain search after mercy in its lineaments. The refusal to confess was the signal for the torture. This was applied in three ways, by the cord, by fire, and by water. In the first mode, the hands were tied behind the back of the prisoner, by means of a cord passed over a pulley above his head. He was raised by the cord as high as the roof, where he was permitted to hang for some time, when the rope was suddenly relaxed, and he fell within a foot and a half of the ground. This dislocated all the joints, and the cord entered to the sinews. This punishment was renewed every hour, till the sufferer was left without strength or motion ; when he was remanded to his cell, to die or to revive for a punishment more horrible. In the second trial, the patient was stretched and tied on a wooden spout so contrived as to bend his back and raise his feet above his head ; this much impeded respiration. The executioner then introduced at the bottom of the throat a piece of fine linen, a part of which covered the nostrils ; poured water into the mouth and nose, and left it to filter so slowly, that an hour passed before the sufferer could swallow a drop, although it trickled constantly. There was no interval for respiration. He attempted constantly to swallow, hoping to give passage to a little air, which the linen constantly prevented. The linen was often, when taken from the throat, stained with the blood of vessels ruptured in this attempt to breathe. Besides this, at every moment a powerful arm turned a lever, and made the cords on the arms and legs penetrate even to the bones. Fire was the next means employed to make the accused criminate himself. The feet were rubbed with oil and lard, and placed before the fire till they were so roasted, that the bones and sinews appeared. Death was a relief, and confession gratified the inquisitors at last. Few of the tortured ever returned to tell the hideous secrets of their prison.

The condemned were executed at an *Auto da fe*, an Act of Faith, which was both general and particular. The former took place on great occasions, as the accession of a Prince, his marriage, or the birth of an Infanta. This was reserved as an offering worthy to be presented to a king. A balcony of great extent was erected, in which the seat of the grand inquisitor was placed above that of the king, who was surrounded by *grandees* and ladies of the court.

There was a long procession, ecclesiastic and lay, in which the prisoners came last, many of whom were gagged. The condemned were shut up in a pen, and each one knelt as his sentence was read. The grand inquisitor then surrendered all who were to be executed, to the secular arm, and they were conducted to the place of burning, or *Quemadero*. Here there were as many funeral piles as victims. Napoleon suppressed the inquisition, and Ferdinand revived it. But public opinion had, even in Spain, become too strong for it to exist. In 1820, when the popular outbreak restored the constitution, the people everywhere rose against the inquisition, forced the gates, delivered the prisoners, and demolished the dungeons and instruments of torture. The institution is now at an end in Spain. From 1481 to 1820, the number of persons burned alive was 34,658, and the number of others condemned to the galleys or imprisonment, 288,214.

The dead are buried in Spain in the dress of a Franciscan or Dominican, with the hands holding a crucifix ; children under seven years old are supposed to be taken at once to heaven, and their funerals are celebrated like joyful events, with festivity and the ringing of bells.

19. *Government.* Spain was long an absolute monarchy, in which the power of the king had no limits but the slender barrier that public opinion could, in a country without education or a press, interpose. The evils of this kind of government have, in Spain, been peculiarly aggravated by the individual character of the monarchs. The title of Most Catholic Majesty

which was granted by the Pope to Ferdinand in 1496, has been continued to the succeeding sovereigns. In the king's title, are enumerated all territories which he holds, or at any time has held. The heir apparent is called Prince of Asturias. The other royal children are called Infante or Infanta. During the present century, several attempts have been made to revive the old *cortes*, or great council of the nation, once the most powerful of European legislative assemblies. In 1837, a new constitution was proclaimed, intended to meet the more liberal spirit of the present age. By this act, the Cortes, consisting of a senate, appointed by the crown from a list nominated by the electors, and a congress of deputies chosen by the qualified electors, forms the legislature, and has the power of enacting laws with the royal sanction. The deputies are chosen for three years, and the senators for nine; the crown, however, has the right of dissolving the Cortes, and on each dissolution, one-third of the senators must be renewed.

20. *Laws.* Either the spirit or administration of the laws must be defective, for neither life nor property is universally safe. There are several ancient codes, and the civil and canon laws have some authority. Justice, in Spain, carries with it more terror than mercy; and is avoided as a pestilence. It is now, as in the time of Gil Blas, perilous alike for the guilty and the innocent to enter its courts. When a murder is committed, all run from the dying victim, as they would from the murderer; and when one is found murdered in a house, the very walls of the dwelling are stripped by the hungry followers of justice. One of the greatest obstacles to public and private justice is found in the notaries, or *escribanos*. A more efficient system could hardly be devised for the obstruction of justice. The notaries only, receive the testimonies of witnesses, putting what questions they will, and reading such replies as may the best advance their own interest; and often in the absence of the judge. The notaries are, therefore, sometimes bribed before the commission of the crime. The clergy often interfere, to obtain the pardon of an offender; but when he has no friend among the notaries or clergy, the execution of justice is generally certain and severe. The manner of executing criminals is worthy the country where condemnation has so often been wrested from the groans of the innocent. Death is inflicted by the *garotte*, which is an iron chair with a collar fitting close about the neck; this is tightened by a lever or screw, and causes instantaneous death.

Hanging by the neck is, however, the most infamous and the most common. The Verdugo, or hangman, is dressed in green, from an ultra catholic aversion to the sacred color of Mahomet. He posts himself on the second round of the ladder, while the criminal, with pinioned arms, is brought to the first. He grasps his victim under the arms, with an alacrity that shows his duty and his pleasure to be the same, till both arrive at the proper height, while a clergyman in sack-cloth, and girded with a scourge, follows closely, continually exhorting the criminal. The hangman places two cords of equal length over the shoulder of the shivering wretch, seats himself firmly about his neck, with his feet in the crossed wrists, as a stirrup, and both swing off and fall together. In this position, the Verdugo jumps up and down, while the assistants hang upon the malefactor's legs below. Thus die the patriots as well as the malefactors of Spain, and thus perished Riego.

21. *Antiquities.* Spain abounds in the antiquities of three powerful nations; of the Romans, the Goths, and the Moors. As the remains are chiefly architectural, all but those of the Romans will be mentioned in the account of cities. The Roman antiquities are in good preservation, and some of them are monuments of art. At Coruña, is a columnar pharos, with an inscription which somewhat confirms a tradition, that it was consecrated to Hercules by the Phœnicians, and afterwards repaired by the Romans, who dedicated it to Mars. One half of the bridge over the Tormes, at Salamanca, was built by the Romans, the rest was made by Philip the Fourth. Segovia retains its Latin name, and it has a magnificent aqueduct, built by Trajan. This has a double range of arcades, and it has conveyed water to the town for upwards of 1,700 years. It has 109 arches, the largest 90 feet from the ground to the conduit, and the length of the space they cover is more than 2,530 feet. In Barcelona, are several Roman remains. Near Villa Franca, is an ancient aqueduct, forming a line between two steep mountains. Near Villanova, are the ruins of a fortress, and numerous sepulchres dug in the rocks. These indicate the site of Carthago Vetus, a town mentioned by Ptolemy. There is a triumphal arch beyond the town of Vendrell, and near Torre-dam-Barra, a magnificent tomb, which, according to a popular tradition, contains the ashes of Scipio. At Tarragona, is another Roman aqueduct still used to convey water. At Alcantara, there is a noble bridge over the Tagus, built by Trajan. It rises to the height of 211 feet 10 inches above the river; its

length is 568 feet, and its breadth, 27 feet 6 inches. Of the 6 arches, the 2 central ones are 94 feet wide. *There is an inscription in honor of the Emperor, and a mausoleum for the architect, at the end of the bridge. It is built of stones enormously large, and is at present consecrated as a chapel to St. Julian. In Merida, the Roman remains are little inferior in number or interest to those of the towns in Italy. There are 2 ancient bridges of great solidity, and in good preservation; one has 60 arches, and extends 2,800 feet. Among the antiquities within the walls, are a fine triumphal arch, the ruins of temples, columns, inscriptions, &c. Without the walls, are a theatre, a naumachia, a circus, the remains of three aqueducts, and of four Roman ways. There are many other antiquities, of inferior magnitude and interest, in various parts of Spain.

22. *Revenue, Debt, Army, &c.* The revenue of Spain was once the largest in Europe, but is now greatly reduced, not exceeding 35,000,000 dollars. The debt is 350,000,000, and is rapidly accumulating. The system of taxation is very defective, and varies according to the exigencies of the government.* The army which is the main support of authority, is kept in pretty good order, and amounts to nearly 100,000 men. The navy has dwindled away almost to nothing.

23. *Colonies.* The vast territories which formerly belonged to the Spanish crown in different parts of the world, were officially styled the Indies, and it was said without exaggeration, that upon its dominions the sun never set. But the only remains of this colossal power, at the present time, are the islands of Cuba and Porto Rico, in America; the Canaries and the presidios or fortresses on the northern coast of Africa, of which Ceuta is the principal; and the Philippine and Marianne and Ladrone islands, in Oceania. The entire population of these colonies is about 4,500,000.

24. *Population.* The number of inhabitants in Spain was estimated, in 1826, at 13,732,172. Of these 127,345 belonged to the clergy; 100,732 were soldiers, and 14,064 sailors. The population has probably decreased since that time. It is now estimated at 12,000,000.

25. *History.* The early inhabitants of Spain were various Celtic tribes. The attempts of the Carthaginians to establish colonies in the country gave rise to the second Punic war with the Romans, which resulted in the acquisition of the whole peninsula by the Romans. It continued a Roman province for 500 years. At the fall of the Roman empire, the Vandals, Alani, and Suevi invaded Spain; and, in 419, the empire of the Visigoths was founded. In the early part of the 8th century, the Saracens invaded the country from Africa. Roderic, the last Gothic king, was defeated by them, at the battle of Xeres, and the Gothic inhabitants were driven into the mountains of Asturias and Biscay. The Moors established themselves in the southern part of the country, and their sovereigns reigned in great splendor at Granada. The Spaniards were roused to resistance by Don Pelayo, and maintained a struggle against the Moors, which the Spanish historians dignify with the name of a continual war of 700 years. The territories gained from the enemy, were formed into several distinct kingdoms. These were gradually amalgamated; and, in 1469, the marriage of Ferdinand, king of Arragon, with Isabella, queen of Castile, united the whole of Christian Spain into one kingdom. These sovereigns conquered Granada, and completed the total subjugation of the Moorish power in the peninsula, at the same time that Columbus, under their auspices, discovered America, and gave them a new world in the west.

In the 16th century, under Charles the Fifth, who was King of this country and Emperor of Germany, Spain was the most powerful monarchy in Europe. Philip the Second, the successor of this monarch, expelled all the *Moriscoes*, or descendants of the Moors, who remained in the country, which caused an immense loss to the kingdom, in wealth and population. The war of the Succession, in the early part of the 18th century, completed the impoverishment of the country, and Spain has been only a second-rate power since that time.

In 1808, Napoleon seized the kingdom, and placed his brother Joseph upon the throne; but the resistance of the people, who were assisted by the armies of Britain, and his reverses in Russia, frustrated his plans. This event caused the revolt of nearly all Spanish America

* The revenue is ordinarily derived from the following sources: customs; duties on tobacco and salt; stamps; lotteries; *lanzas*, or contributions, exacted from the *grandeos*, as an equivalent for the lances, or horsemen, which they formerly furnished to the crown; the *crusada*, an ancient tax, levied for the crusades; the *excusado*, a subsidy,

granted by the pope, for the revenue of the clergy; the *noveno*, a ninth part of the tithes; the *tercias*, two ninths of the tithes; the *diezmo*, a tax on the river-fishings at Seville; half the annats of the secular clergy; fines, posts, capitation tax, and duties on gunpowder, saltpetre, and other products.

In 1820, an insurrection of the troops and the people, against the tyrant Ferdinand, produced a liberal constitution, which was sworn to by the king, in the ancient assembly of the Cortes. But the Holy Alliance expressed their disapprobation. France interfered; the constitution was put down by the bayonet, and despotism restored. On the death of Ferdinand the Seventh, in 1833, his infant daughter, Isabella, was proclaimed queen, in compliance with the testamentary directions of her father; but Carlos, or Charles, brother of the late king, laid claim to the crown, on the ground that, by the constitution of the Spanish monarchy, a woman could not succeed to the throne of Spain. The rival claims of the uncle and niece led to a long war, and that war led to a revolution, by which the government has been changed to a limited monarchy. But it still remains much under military rule, and has yet done but very little to re-establish the public prosperity.

CHAPTER IX. PORTUGAL.



PHYSICAL GEOGRAPHY.

1. *Boundaries and Extent.* Portugal is bounded north and east by Spain, south and west by the Atlantic. It lies between 37° and $42^{\circ} 11'$ N. latitude, and $6^{\circ} 20'$ and $9^{\circ} 40'$ W. longitude. It is 360 miles in length, and 150 in breadth, and contains 35,400 square miles.

2. *Mountains.* The mountains of Portugal are prolongations of the ranges we have already described in Spain. The *Sierra de Cintra* is the extremity of the Iberian chain, and reaches to the sea, a little north of the mouth of the Tagus, where it forms the celebrated Rock of Cintra. The *Sierra de Guadalupe* extends to the sea at Cape St. Vincent.

3. *Rivers.* The *Douro* rises in Spain, and passing into this country, takes the name of *Douro*, and flows into the sea at Oporto. The *Tagus* passes from Spain through Portugal, to the sea, at Lisbon. The *Mondego* is a small stream, between the above rivers, which has the whole of its course in Portugal. The *Minho* forms part of the northern boundary, and the *Guadiana* passes into the kingdom, and forms part of its southeastern limit.

4. *Capes.* Cape St. Vincent is a very prominent headland, forming the southeastern extremity of the kingdom; it is the termination of one of the mountain ranges, already described. Cape Roca, a little to the north of the Tagus, is the extremity of another chain. It is a celebrated sea-mark, known to mariners as the "Rock of Lisbon."

5. *Climate.* The climate is more agreeable and healthy than in the most of Spain. The air of Lisbon is famed for its salubrity, and that city is resorted to by invalids from different countries. The heat of summer, and cold of winter, are tempered by the neighboring ocean. At Lisbon, there are commonly 200 days in the year completely fair. The rainy days are not more than 80. When rain falls, it is very violent. If October is rainy, it is not uncommon to see the fruit-trees blossom anew in November.

6. *Soil.* Portugal is a fertile country; the soil is light, and easily cultivated. The mountains are mostly barren, but some of them are covered with a fine vegetation.

7. *Minerals.* The Romans had mines in this country, vestiges of which are still to be

open; yet Portugal is not, at present, productive in minerals. There have been found here, gold, silver, tin, lead, copper, iron, coal, quicksilver, rubies, hyacinth, beryl, manganese, bismuth, and arsenic. The salt is obtained from sea-water.

8. *Face of the Country.* This country has not so great a proportion of mountains as Spain. There are 2 extensive plains; that of Beira, in the north, and that of Alemtejo, in the south. The coast is low in the north, but grows high and rocky toward the south. In the wildness and grandeur of mountain scenery, Portugal is inferior to Spain, yet in general appearance, it is esteemed a more pleasant country.

POLITICAL GEOGRAPHY.

1. *Divisions.* Portugal is divided into 6 provinces, namely, — Entre Douro e Minho, Tras os Montes, Beira, Estremadura, Alemtejo, and Algarve, which last has the title of a kingdom. The population is estimated at 3,400,000.

2. *Cities and Towns.* Lisbon, the capital, stands on the north bank of the Tagus, 10 miles from its mouth. It rises gradually from the water, and makes a magnificent appearance from without. The harbor, formed by the expansion of the river, is 9 miles wide, and is one of the finest havens in the world. The interior of the city, disappoints the expectation created by the first view. It is ill built, with dirty, narrow, and crooked streets; yet some parts, of modern construction, are not wanting in elegance. There are 13 large squares, the finest of which is the Praça do Commercio; this is fronted by elegant buildings, and bordered, toward the river, by the handsomest quays in Europe. In the centre, is an equestrian statue of Joseph the First. The cathedral is magnificent, and remarkable for the boldness of its dome. The Royal Hospital is an excellent institution, and there is a large foundling hospital. Lisbon has, also, 3 observatories, many colleges and academies, 180 churches and chapels, 75 convents, and a royal library of 80,000 volumes. But the most remarkable edifice which it contains, is the aqueduct of Bemfica. It is 10 miles in length; some of its arches are 200 feet high and 100 feet wide. Altogether, this is one of the most magnificent structures, that have been erected in modern times, and is not inferior to any ancient work of the same kind. There are 3 royal palaces in Lisbon and the neighborhood, and around the city are between 6 and 7 thousand *quintas*, or country houses. Population, 280,000.* Not far from Lisbon, is the rock or mountain of Cintra, which consists of towering pinnacles, composed of loose blocks of granite heaped together. Its environs exhibit the most beautiful scenery in the kingdom. *Mafra*, on the western side of the mountain, is remarkable for a convent, church, and palace, adorned with painting and sculpture, and regarded as the most superb edifice in Portugal.

Coimbra, on the Mondego, is celebrated for its university. It has a delightful neighborhood, but the town is a dismal place within. Population, 15,000. On the Mondego, near the town, is the *Quinta de legrimas*, or Louse of tears, where Inez de Castro was imprisoned and murdered.

Oporto, on the Douro, is an important seaport. Its harbor is excellent, and the town is strongly fortified by nature. It has some fine squares and churches, but the houses generally are mean, and the streets narrow. It has a great trade in the exportation of oranges, lemons, and the wine called, from this place, Port wine. Population, 80,000.

Setubal, or, as it is improperly called by seamen, *St. Ubes*, has an excellent harbor, and an extensive commerce. It exports wine, oil, and oranges, and particularly salt, of which a large quantity is made here. Population, 15,000.

Braga is a commercial and manufacturing town, in the northern part of the country, with 14,000 inhabitants. It contains an ancient cathedral, remarkable for its great size, and some remains of a Roman temple, amphitheatre, and aqueduct.

Lamego, in Beira, with 9,000 inhabitants, and *Santarem*, in Estremadura, once the residence of the Portuguese kings, with 8,000 inhabitants, are places of historical interest.

Eiras, in the west, is a strongly fortified town. Population, 10,000. Here is a remarkable

* Lisbon has been terribly desolated by earthquakes. In 1755, the earth trembled, with intervals, for a year. On the 1st of November, a violent shock laid the city in ruins. In the lower part of the city, not a street could be traced but by the fragments of broken walls. The cathedral fell, burying an immense quantity of wealth in its ruins. More than 100 palaces, churches, and convents were ruined, and the property of all kinds destroyed is incalculable. During the whole month of November, the earth continued to trem-

ble two or three times a day. A conflagration added its destructive ravages to that of the earthquake. The heights about Lisbon were covered with people escaped from the city, and their innumerable multitude of tents resembled the encampment of an army. Dead bodies lay unburied among the ruins, and others were dug out alive, after being buried for several days. It is remarkable, that the great aqueduct, notwithstanding its enormous height and extent, remained unharmed.

aqueduct, which leads the water into an enormous subterranean cistern under the ramparts of the town.

Evora, to the east of Setubal, has many Roman remains, among which is a temple of Diana, now converted into public shambles. Population, 9,050.

Leiria, a little to the north of Lisbon, is beautifully situated in the midst of a narrow valley, and has a famous annual fair. Population, 7,000. The convent of Batalha, 6 miles from this place, is one of the most remarkable Gothic structures in Europe. *Alcobaça*, 12 miles from this place, was the richest monastic establishment in the world; the kitchen is 100 feet in length, and is supplied with water by 8 fountains. Its domains comprised a tract of country 20 miles by 15, containing 13 market towns and large villages, with 2 seaports, and as many fortresses.

3. *Agriculture.* Portugal, though rich in natural productions, wants the cultivation of industrious hands. The wealth of the colonies and commerce withdrew the attention of the inhabitants from agriculture, which has been for several centuries in a low state. Excellent fruit is raised and exported in considerable quantities, and several sorts of wines of excellent quality are produced; the red Port wine is much drank in England and the United States. Although the country affords excellent pastures, grazing is little attended to. Corn is raised in so small quantities, that it is necessary to import it.

4. *Commerce.* The want of roads discourages internal commerce; there are no canals, and the navigable rivers are few, and often too low for boats. The foreign commerce, once extensive and profitable, is now insignificant; the troubles, revolutions, and civil wars that have distracted the country since 1820, have depressed every sort of industry. Manufactured goods are imported from Great Britain, and salted and dried fish from the United States. The exports are wine and fruit. The commerce is mostly carried on by British and American vessels. The annual exports amount to about 10,000,000 dollars.

5. *Manufactures.* There are a few manufactories of woolen cloth at Covilham, Portalegre, and Azeitao, and of hats and paper at Lisbon; but they are not sufficient for the supply of the country. Salt is made in the marshes upon the coast to the amount of 140,000 hogsheads annually.

6. *Fisheries.* The rivers and coasts abound in fish similar to those of Spain. The fisheries employ 18,000 men, and are heavily taxed by the government. They are much less productive as a source of wealth, than formerly.

7. *Inhabitants.* These have not for centuries been mixed; they are well formed and slender, and dark in complexion. The females are distinguished for gracefulness. The privileged classes are the nobility and clergy; after which, rank the traders and peasantry. The nobility seldom live on their estates; but reside at court, where they hold all the offices. There are five orders of knighthood, with many commanderies, viz. the Order of Christ, of St. James, of Avis, of St. John, and of the Tower and Sword.

8. *Dress.* The common mode of dress is similar to that of Spain, though among the higher classes the English or European dress is common. The ladies wear a black garment over a black petticoat, and at Lisbon cover the head and breast with a *manto*. The common class of females wear cloaks and petticoats of woolen, edged with ribands or gold lace; women of all ranks wear many trinkets and jewels. Many of the common people still wear the ancient habit, the petticoat and jacket. The fashion of dress is subject to little change, and milliners or mantau-makers do not thrive at Lisbon.

9. *Language.* The language is somewhat similar to the Castilian, and has a few French and Arabic words. It is devoid of the guttural sounds so common in the Spanish; yet its nasal terminations somewhat detract from its harmony.

10. *Manner of Building.* There are few monuments of architecture, and the general manner of houses is similar, though inferior, to that of Spain.

11. *Food and Drink.* The Portuguese are temperate; the men do not generally drink wine, and the females never do; little tobacco is used in any way. Bread, called *broa*, made of Indian corn, forms the principal food of the common people, and vegetables are much used. The wines of Portugal are sold under the direction of a company who mix them; for which reason, those of the best quality can never be had pure. The port wines and the white wines are thus mixed. The wines of Setubal are of a good quality, both dry and sweet. Bucellas, near Lisbon, produces a delicate white wine resembling Barsac.

12. *Diseases.* Fevers are not uncommon in many parts of Portugal. Rheumatism and pleurisy are somewhat frequent in the north. The salt marshes of the coast produce dropsy and obstructions. The working classes, in some parts, are subject to a sort of leprosy. In the south, an inflammatory disease is occasioned by eating unripe figs

13. *Traveling.* The traveler in Portugal is obliged, on many of the routes, to carry all his accommodations with him, even beds, on sumpter mules, if he should be fastidious in point of lodging. The facilities for traveling are less than in Spain, though there is less danger from robbers.

14. *Character, Manners, &c.* With some resemblance to the Spanish people, the Portuguese have yet a great antipathy to them. The different ranks of society are as distinct as in Spain; and the influence of the clergy is as great, and may be traced in the ignorance and bigotry of the people. The Portuguese are not particularly social; but they are gentle, domestic, and fond of retirement. Their character and customs are not liable to change; travelers are few, and there is little intercommunication between different parts of the country. In the absence of improvement, the Portuguese are greatly bound to ancient ceremony and usage. No person, who regards his own dignity, would walk to make a call of ceremony on another; and it would be an insult upon those he visits, to appear without a sword and chapeau, or without spurs to his boots. The peasants are civil, and salute everybody, by taking off their hats and saying, "the Lord preserve you many years." The common people have some peculiar traits of pride. They will draw, but not carry a burden. The Gallegos, however, are the common porters, and have no such scruples. The country is overrun with beggars, who are to the last degree importunate, and solicit as if demanding a right. The females are more secluded than in Spain, and seldom breathe the fresh air but in going to church. When married, they retain their own names. All people are addressed by their Christian names. The useful arts are in a low state, and labor everywhere supplies the want of skill. All the implements of agriculture denote an unenlightened state of society.

15. *Amusements.* Bull-fights, billiards, cards, and dice, are common amusements, and the guitar and fandango are general among the peasantry. The bull-fights are similar to those of Spain, except in a more adventurous practice of one of the players, whose part it is, when the animal plunges at him, to seize him by the horns, and to be thus carried round by the bull till his comrades relieve him.

16. *Education.* Education is in the lowest state. The task of teaching is imposed upon the monks, who are themselves grievously ignorant, and whose interest it is to keep others so. There is but one university, which is at Coimbra, and has a library of 60,000 volumes, and a good botanical garden. There is a small college at Evora; also, at Lisbon, a college for the nobility; and there are in the kingdom 800 elementary schools.

17. *Arts, Sciences, and Literature.* The arts have hardly an existence in Portugal, and science and literature are much circumscribed. The literature consists chiefly in poetry, and excludes all philosophy. The very Latin partakes of the state of knowledge. The Latin of monks is unintelligible to the learned. Little has been done in Portugal for the mathematics, though something has been effected for geography, natural history, and botany. The music is simple and sweet, and it is chiefly confined to songs. All the best foreign works are prohibited, and everything published is subjected to a strict censorship.

The principal dramatic writer was Gil Vicente, who preceded Lope de Vega and Calderon. But the great poet of Portugal is Camoens, whose *Lusiad* is well known beyond the limits of the Portuguese language. Yet so little regard is paid to the memory of this great man, the brightest ornament of his country, that he has not a monumental inscription in the kingdom to remind the Portuguese of their former glory. His tomb was demolished a few years since, in repairing a church, and the spot where he lies is unknown!

18. *Religion.* The strictest Roman Catholic religion is established in Portugal. The clergy are neither enlightened nor pure in life, and the force of their evil example is as pernicious as that of the priests in Spain. There is a patriarch, subordinate to the Pope. There are 3 archbishops and 15 bishops, and 4,262 parishes. Previous to 1834, when the religious houses were suppressed, and their property seized by the government, there were 360 convents and 140 nunneries. The number of the secular clergy is 22,000; that of monks was 5,800; of nuns, 6,000. There was an order of friars "of Divine Providence," who trusted to Providence, and never went forth to beg. When in want of provisions, they sounded the alarm upon the convent bell, and supplies were poured in by the faithful. The mendicant orders were the most numerous, though much land was held by different convents.

19. *Government.* The government, until 1838, was in effect an absolute monarchy, for the constitutional charter of 1820 was but a dead letter, though the nominal provisions of it were liberal. In 1828, a new constitution was adopted, which has since undergone several changes. After great disturbances and civil wars, the government has finally settled down into a limited

monarchy, with a legislative assembly, but it still continues to be from time to time disturbed by violent outbreaks, and is far from having attained to the order of regular constitutional monarchy. But nevertheless, the affairs of the country appear to be improving.

20. *Colonies.* Even since the loss of Brazil, the colonial possessions of Portugal are extensive and valuable. In Asia, she possesses Goa and Diu in Hindostan, Macao, and part of the island of Timor, forming together the viceroyalty of India, with 600,000 inhabitants. In Africa, the Cape de Verd and Madeira islands; the isle of St. Thomas and Prince's island, in the Gulf of Guinea; some factories in Senegambia; Angola, on the western coast, and the government of Mozambique, on the eastern, with about 1,400,000 inhabitants, are occupied or claimed by Portugal. The Azores also belong to Portugal.

21. *History.* The early history of Portugal is connected with that of Spain. Alphonso the Sixth, king of Castile and Leon, bestowed this country upon Henry of Transtamare, a brother of the Duke of Burgundy, with the title of Count of Portugal, at the same time declaring the country independent of Castile. Henry's son, Alphonso the First, won a victory over the Moors, and was crowned king of Portugal by his soldiers, on the field of battle, in 1139; Philip the Second of Spain conquered the kingdom and annexed it to his own crown in 1581; but the independence of Portugal was restored in 1640. The kingdom was overrun by the French armies in 1807, and the royal family fled to Brazil; but the French evacuated it the following year. The usurpation of the crown by Don Miguel threw the affairs of Portugal into a state of great disorder, and was soon followed by a disastrous series of civil wars and revolutions.

CHAPTER X. GENERAL VIEW OF ITALY.



1. *Boundaries and Extent.* Italy is bounded on the north and northwest by the Alps.

which separate it from France, Switzerland, and the Austrian empire ; on the east by the Adriatic sea, and on the south and west by the Mediterranean. It is comprised between 6° and 18° E. longitude, and 37° and 47° N. latitude, forming a long peninsula, about 700 miles in length, with a general width of nearly 150 miles. Area, 120,000 square miles ; population, 24,400,000

Italian States in 1840.

	Square Miles.	Population.		Square Miles.	Population.
Sardinia, - - -	28,830	4,500,000	States of the Church, - - -	17,050	2,590,000
Monaco, - - -	50	6,700	Two Sicilies, - - -	41,521	7,650,000
Parma, - - -	2,184	440,000	Tuscany, - - -	8,300	1,330,000
Modena, - - -	2,073	300,000	Lombard-Venetian Provinces of		
Lucca, - - -	410	145,000	Austria, - - -	20,000	4,440,000
San Marino, - - -	21	7,500			

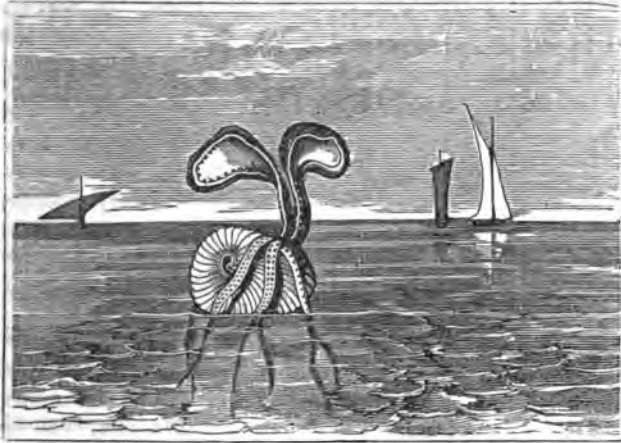
2. *Mountains.* The *Alps* occupy the northern and northwestern border. The *Apennines* extend through the whole peninsula, from the valley of Savona to the strait of Messina, sending off a branch to Otranto. They nowhere rise to the limit of perpetual ice, but are covered with snow in winter, and are crowned to their summits with trees. The highest mountains are *Mount Corno*, or the *Gran Sasso*, 9,520 feet, and *Mont Velino*, 8,183 feet high.

3. *Rivers.* The only large river is the *Po*, which drains nearly the whole of the northern part. Most of the other streams rise in the *Apennines*, whose vicinity to the sea on both sides prevents their having a long course.

4. *Islands and Seas.* On the northeast, is an arm of the Mediterranean, called the *Adriatic Sea*, or the *Gulf of Venice*. It is about 600 miles long, and 150 wide, and its narrow entrance is commanded by the island of *Corfu*. It has several good harbors, but in some parts the coast is dangerous. Its principal bays are the gulfs of *Trieste* and *Manfredonia*. To the southeast of Italy, between Sicily and Greece, is the *Ionian Sea*, which is connected by the strait or *faro* of Messina with the *Sicilian Sea*, lying between Naples and Sicily, and containing the *Lipari Isles*. The part of the sea between the islands of Corsica and Sardinia and the Tuscan shore, is often called the *Tuscan* or *Tyrrhenian Sea*, and between Nice and Lucca is the *Gulf of Genoa*. The principal islands are *Sicily*, *Sardinia*, and *Corsica*. To the south of Sicily is the *Maltese* group, comprising *Malta*, *Gozzo*, and *Comino*, and belonging to Great Britain.

5. *Vegetation.* There is a wide difference between the vegetation of northern and that of southern Italy, owing more to the increased height and breadth of the *Apennines*, than to the difference of latitude. The olive tree, however, reaches to the northern limits, and the pistachio (*Pistacia lentiscus*), pomegranate, *Zizyphus vulgaris*, *Diospyros lotos*, *Celtis australis*, and *ostrea vulgaris*, abound in the north, as well as in the south. The orange and lemon do not thrive north of Samnium, except in some favorable exposures near the coast. The plains and slopes of southern Italy produce olives, tamarisks, arbutus, myrtle, jujube, pistachios, and terebinths (*Pistacia terebinthus*), oleander, sweet bay or laurel, carob (*Ceratonia siliqua*), the palmetto, rhanonius ; the stone pine (*P. pinea*), whose picturesque outlines and dark hue have recommended it so much to the artist, that it forms a striking feature in almost all Claude Lorraine's landscapes, manna ash, chestnut, mulberry, plane, willow, poplars, &c. The *Apennines* of this section are covered with oaks and cone-bearing trees, especially the common oak, cork oak (*Quercus suber*), yew, horse chestnut, larch, Scotch fir, pinaster, &c. The oaks continue also in the north, but the coniferous trees are scarce. In Sicily we find a tropical vegetation ; even the sugar-cane is cultivated, and the orange, citron, myrtle, laurel prickly fig (*cactus tuna*) date-palm, custard apple, pomegranate, &c., abound. Maize, millet, and rice, are common objects of cultivation throughout the country, and caper (*capparis spinosa*) is a valuable plant. The *Arundo donax*, a gigantic grass, of which fishing-rods and walking-sticks are made, is common.

6. *Animals.* In the mountainous parts are found the lynx, the chamois, the wild goat, ferret, dormouse, lemming, and porcupine. There are many oxen called buffaloes, which are tamed in the southern parts. The Neapolitan horses are strong and well made ; the ass and mule are of an excellent kind, and the sheep are equal to the Spanish. Birds are numerous. Some of the reptiles of the south are common to Africa. The most noxious serpents



The Nautilus.

are the asp and viper. The tarantula, or poisonous spider of the south, has been the subject of many fables ; its sting yields readily to different remedies. The seas abound with fish and molluscs. In the Gulf of Taranto is found the shel. fish which affords the Tyrian purple, so highly prized by the ancients. In these seas also the Nautilus spreads its thin sail.

7. *Canals.* It was in Italy, that the great improvement of constructing locks and sluices in canals, so as to pass boats from one level to another, was first introduced. The canals of Italy are in part intended for purposes of irrigation, and in

part for navigation. The former are numerous in Sardinia, the Lombardo-Venetian kingdom, Tuscany, and the northern part of the Papal dominions. Of the latter, the principal are the *Naviglio Grande*, from the upper part of the Ticino to Milan, which has been continued from Milan to Pavia by the Pavia Canal ; total length, 30 miles ; the *Martesana Canal*, from Milan to the Adda, 24 miles ; the *Pisa Canal*, from Pisa to Leghorn ; the *Cento Canal*, from Bologna to Ferrara, 34 miles, whence it is continued to the main branch of the Po ; and the canal from Modena to the Panaro.

8. *Roads.* The mountain roads which connect France with Savoy, and Valais with Italy, from the difficulties overcome in their construction, and the immense labor necessary in erecting bridges, excavating tunnels, &c., rank among the greatest productions of human energy and art in modern times. The road over Mont Cenis, which was formerly passed only on mules, or in sedans, is 30 miles long, and passable by carriages ; it rises to the height of 6,775 feet. The road over the Simplon, from the Valais near Brieg, to Piedmont near Arona, rises to the height of nearly 7,000 feet, and passes through six galleries or tunnels hewn out of the rock ; one of these is 683 feet long. The road is 36 miles in length, and crosses many tremendous precipices by means of bridges. The road from Bormio, in the Valteline, over the Stelvio or Stillerjoch, forms the communication between Innspruck and Milan, and is the highest road in Europe, reaching an elevation of upwards of 8,000 feet. Several other Alpine roads have been constructed from France to Sardinia, and from the German into the Italian provinces of Austria.

9. *Inhabitants.* The Italians are descended from different nations, which, at various times overran Italy, though they are now blended into one race. A few Greeks live on the coast of the Adriatic ; there are Germans in Lombardy, Venice, &c., and Jews scattered over the country ; but there are not probably 200,000 inhabitants who are not Italians. The Italians are distinguished for their animated and expressive countenances, and they have very brilliant eyes. They are generally of dark complexions, well formed, and active. The women have black or auburn hair, and most of the requisites for beauty. Among the inhabitants are many cripples and deformed ; for the poor in Italy suffer many hardships and privations ; but among the lowest class, and especially at Naples, the human form is seen in its greatest perfection, and the half-clad *lazzaroni* are the best models for a sculptor.

In all the States of Italy there are the usual grades of European nobility ; and the individuals are more numerous than those of the same class in any other country. In some of the States of Italy all the sons of the nobility and their sons, bear the original title. Of course numbers are indigent ; and many of them are known to solicit charity.

10. *Dress.* The higher classes wear the common European dress. At Genoa, however, females of all ranks, wear very gracefully, the *mazzaro*, a kind of shawl thrown over the head and shoulders and folded round the arms. In Savoy the French fashions are generally followed by the upper class ; but the common people all over Italy have their local peculiarities of dress. The fashions vary even in small districts or towns. The shepherds wear the skins of their flock, with the wool outward in summer, and inward in winter. These garments are

rudely formed, and have sometimes only holes pierced for the head and arms. In Sardinia



Inhabitants of Modern Italy.

and Tuscany, the females have many ornaments of pearl, coral, and gold ; and even the poorest are rich in these. In Tuscany the females of the common classes wear black beaver hats, with high crowns, and stiff plumes of black feathers. On holydays they are streaming with ribands. At Naples the lazzaroni have gaudy holyday dresses, but some of them may be seen lying naked in the sun, and many have no other covering than breeches that end above the knee. In the island of Procida, the females to this day wear the Greek costume, which, in that sequestered nook, though within a few miles of Naples, has descended from their ancestors.

11. *Language.* The written language of Italy is uniform, though there are various dialects spoken in different districts, and in Savoy the more general language is the French. The Italian is founded on the Latin, which it nearly resembles, except in the articles and auxiliary verbs. All foreign, or barbarous words, are said, by Muratori, not to exceed 1,000. The language is so sweet and liquid, that it is consecrated to music in all European countries ; yet, though soft to a great degree, it is distinguished for force, as will be allowed by all readers of Dante. The language is spoken with the most purity at Rome, Siena, and Florence ; but the Venetian dialect is the most musical.

12. *Manner of Building.* In Italy, are the most splendid and perfect monuments of architecture. The churches are the most costly and magnificent ; the monasteries capacious, and the palaces unrivaled. Many of these latter, however, in the Venetian territory, though built by Palladio, are suffered to decay, and some are razed, for the sake of the materials. Architecture, painting, sculpture, and other arts, are exhausted on the churches. Many of them have a minuteness of finish, that is nothing less than wonderful. The pillars of some are encrusted with mosaic pictures, or precious stones ; the walls covered with frescoes, and the doors inimitably carved in bronze. The gates of the Baptistery, at Florence, were pronounced, by Michael Angelo, to be "worthy of Paradise" ; they are divided into compartments, and carved in bronze, with scriptural histories. There is no part of the churches, that is not richly ornamented. The cities of Italy are all well built, and Genoa is named, from its palaces, "the superb." It is almost a city of palaces, many of which are very striking in effect. In Florence, the architecture is of a more solid character ; the indication of a time, when factions convulsed the city, and every house was designed to resist an assault, and stand a siege. There are few windows, or columns, in the Tuscan palaces. Some of the chief buildings, have been for ages unfinished ; the Pitti palace wants a wing ; the Cathedral is not completed, and the vestibule of the Laurentian Library has still the scaffolding erected by M. Angelo.

At Rome, many of the 300 churches are worthy of admiration, and one of them is the greatest monument reared by the hand of man. The palaces are numerous and elegant. They are generally quadrangles, with an area within, and a wide staircase of marble. The windows are numerous. The palaces, however, seem to be designed as much for the spectator as the tenant ; and none of them are devised for the English principle of comfort.

At Naples, the churches, though rich, are of an inferior architecture, but the palaces are imposing. The roofs are flat, and covered with a cement, that endures the climate. The roofs are terraces ; at some seasons the people sleep upon them ; and every window has a balcony. At Rome and Naples, there are few chimneys ; the climate is so mild, that little fire is necessary. The ladies, however, have, in winter, a little vase of coals, which they place under their dress ; they call it a *marito*, or husband. The leaning towers, are one of the peculiarities of Italy. There are 2 at Bologna, side by side, overhanging the most populous part of the city. One is slender, and 350 feet high. It was formerly 476, but was reduced, from caution, after it had withstood an earthquake. It was erected A. D. 1110. The other is 130 feet high, and 8 feet out of the perpendicular. At Padua, is a hall, built in the 12th century, which has withstood several earthquakes ; it is 300 feet long, 100 feet wide, and the same in height. It is larger than Westminster Hall, yet the walls are insulated, and not strengthened

by abutments, or mutual binding of any sort. The Leaning Tower, at Pisa, is elsewhere described.

13. *Food and Drink.* The food of the Italians is light ; neither the climate, nor the national indolence, requires any other. Chestnuts are used, in many parts, as food, made into a heavy bread ; and, in several of the cities, roasted chestnuts are sold hot. They are 6 times as large as the same nuts in America. Potatoes are growing somewhat into use with the common people. At Rome, *polenta*, or hasty pudding, made of the flour of Indian corn, is a general dish with the common people. Macaroni is a common food only at Naples, where it is both a luxury and a necessary. It is, however, much used over all Italy. It is a dried preparation of flour, in long tubes, which are boiled till they become swelled and soft, when they are eaten with a sprinkling of grated parmesan cheese. It is, with the lazzaroni, the happiest time of their happy 24 hours, when their toil, their tricks, or their importunity, have obtained a few grains, to purchase macaroni, which they hold in long vermiform strings, above the head, which is thrown back, and feed themselves, as it were, by a measure of length. Fruit and vegetables form considerable articles of food. Coffee is a common beverage, and no shops are more frequent than coffee-rooms. A traveler is surprised to see a course of small birds on the table, not larger than wrens. They make a part of every dinner, in the south of Italy.

The wines of Italy, in spite of the want of skill in making, are excellent. They are light, and reach their perfection in a year. The wines of Sicily are the most exported. The Marsala, or Sicily Madeira, made from the Madeira grape, is a strong white wine, and much of it is consumed in the United States. The wines of Sardinia and Corsica, might, with care, be made of a superior quality ; and those of Tuscany are of established reputation. The Aleatico is a red muscadine, and the best is produced at Montepulciano, in the Val de Nievole, and in the Lucchese territory. The sweetness of the wine is tempered with an agreeable sharpness. At Artimino, is produced an excellent claret. The Verdea is a pleasant, white wine, made in the vicinity of Florence ; and the Trebbiano is so sweet, that it is almost a syrup. The Orvieto is a delicious table wine, and the best which is produced in the states of the church. Montefiascone, in the vicinity of Orvieto, produces a most luscious Muscat wine. The Neapolitan territory produces the *Vino Greco*, a sweet wine ; the *Lachryma Christi*, sweet and luscious ; and a muscadine wine, very aromatic. The Gragnano, is an agreeable red wine, produced at Castellamare, in the vicinity of Pompeii. The *Lachryma Christi* is raised in a soil, mixed with the lava, or ashes, of Vesuvius. All these wines are cheap ; for the narrow policy of several of the governments imposes restrictions on exportation, and the inland transportation to the cities is not easy. The Italian wines seldom improve after a year. The domestic consumption of them is great, yet the Italians are as temperate, nearly, as the Spaniards. The *rosoglio*, a cordial, is drank at Naples ; and various cordials in different places.

14. *Traveling.* The most expeditious way of traveling, is by post ; which is somewhat



Hannibal Crossing the Alps.

cheaper than in France. But a common method is, to go with a *vetturino*, in a coach, containing 6 or 8 persons. There is no want of this conveyance on all the principal routes. It is cheap, and as the rate is but 30 or 40 miles a day, affords the best opportunity of seeing the country. The *vetturino* looks out among foreigners for his passengers, to each of whom he tenders a ducat in pledge, to be forfeited if he should fail to go ; but if the passenger should fail to be ready, he also forfeits his ducat. The bargain with the *vetturino*, generally includes the passage, and accommodations at the inns ; and this arrangement saves the traveler much overcharging and wrangling. The route from Rome to Naples, perhaps 150 miles, costs

about 6 dollars, and the *vetturino* is held to furnish a supper of several courses, and a single bedroom, to each passenger. It is common, to make him sign a contract, specifying the particu

lars; and to give him a certain sum, perhaps half a dollar, at the end of the journey, if he has been civil and obliging. The main roads are good, but the cross roads are hardly passable; and in Sicily there are hardly any interior roads. The custom-houses and the passports are great annoyances. The custom-houses are at the frontiers of the states, and at the entrance to cities; the officers well know how to visit the traveler with manifold vexations, if he should fail to purchase their forbearance with a few pauls, generally less than half a dollar. When this preliminary is adjusted, the traveler is permitted to pass with his baggage unopened. There is no escaping the Doganieri. "They stop the chariot, and they board the barge." The vexations of the passports are of more frequent occurrence. The passport is taken at the gate of all considerable towns, carried to the commandant, endorsed and returned by a soldier, whose low bows are generally rewarded with a small coin. When a stranger resides in a city, he surrenders his passport and receives a written permission to remain for a certain time, and this must be renewed when the time has expired. Before quitting one independent State, to visit another, it is necessary to have the permission of the minister or consul of the State to which the traveler is going. These various endorsements and seals on a passport soon cover every part of it, and new paper must be added to it, which in time becomes a long roll.

The inns are few of them good; but generally on the main routes the accommodations are equal to those in France. The beds are almost universally good; and the bedsteads are of iron, with a network of thin iron bands to support the bed. In cities, the hotels generally supply only lodgings. A furnished room is let, and the occupier receives his meals from a *trattoria*, or goes to one himself.

In Italy, which is cut up into so many States, with inefficient governments, robbery is or has been almost a profession, and committed on a scale unequalled, except in Spain. The robber, in Italy, seems to be shielded by popular favor, and he is celebrated in ballads. Fra Diavolo, of Itri, was renowned and feared beyond the limits of his country, and many other brigands have raised themselves to "that bad eminence." The frontiers of the kingdom of Naples, beyond Terracina, were the most dangerous defiles for the traveler, who, if he failed to satisfy the robbers with sufficient plunder, was held to ransom himself by a draft on his banker; and the brigands seldom omitted to keep their threat of murdering him when the draft was protested. Not only travelers were thus seized, but wealthy residents; the wife of one of these sent for ransom a sum less than that demanded, and received in return the captive's ears, with an intimation, that the knife would next be directed against his throat. The house of Lucien Bonaparte was robbed within 15 miles of Rome, and his secretary carried away and held to a ransom of several thousand ducats. It was intended to capture the prince himself, who happened on that day to be absent. The weakness of the government is the strength of the brigands, though at the present time the roads are generally safe. A cardinal, the secretary of state, was sent to Terracina, to confer with the robbers, and an offer of amnesty to all that would surrender, and suffer a limited imprisonment in the castle of St. Angelo, with a certain allowance or salary from the government. Some leaders, their wives, and many followers surrendered, but the government broke faith and held them after the stipulated time. While in prison they were much visited. They were a fine race of men, but hardened and ferocious. The wife of the chief was celebrated for beauty, and the little son went through the brigand exercises with his musket, for the amusement of visitors. Sicily was formerly impassable, by reason of robbers; but when the English had possession, they introduced the code of Alfred, making districts answerable for crimes, and the success was so complete, that Sicily is not much infested with robbers, even now.

Before closing this article, it is proper to mention some of the peculiarities of Italian traveling. In Sicily, where there are hardly any roads, the common conveyance is the *lettiga*, a sort of sedan on long poles. It is carried by two mules, one before and one behind it, with the poles supported over their backs, like common shafts. At Naples, there is a small, but very spirited breed of horses, driven about at full speed in a little open chair, or *calèche*. The driver stands on a board behind, and holds his reins over the passengers' heads. There are seats but for two passengers; but persons often cover the little carriage, holding on wherever they can find space to plant a foot. Eight or ten may be seen thus, carried swiftly by one horse.

Before the present stupendous roads over the Alps were made, it was toilsome and dangerous to cross the mountains. It was the labor, without the glory, of Hannibal. The traveler, in going from Savoy, often descended the mountains to Lans le bourg, on a trainean or

sledge, guided by a mountaineer. In this way, two leagues were passed over in a few minutes.

15. *Diseases.* Some of the most fertile parts of Italy are depopulated by the fevers, that arise from the malaria. The most extensive *maremma*, or marshy, low land, extends from the vicinity of Leghorn to Terracina, and few of the inhabitants remain in it during the summer. The Pontine Marshes, near Terracina, have been noted from remote antiquity for their pestilential vapors. It is fatal for the traveler to sleep on them for a night in summer; and it is dangerous for him to fall asleep in his carriage by day. With every precaution, indeed, and the greatest speed, it is not possible to pass them in summer without peril. The wasted inhabitants of these pestilential districts have the marks of disease imprinted deeply upon them. They are thin, livid, and unwilling to move. They have hard, protuberant waists, and sunken eyes. In some places, they pass their summer nights in the mountains, and a few come down by day to discharge their duties at the post houses. An ascent of ten minutes' walk up the mountains, places them in an air of perfect purity. The malaria seldom rises more than 200 feet. Where it prevails, the vegetation is often enchanting, all flowers open their petals, and every noble tree extends its branches. Yet the agent that produces all this vegetable beauty is fatal to human life, though, like the sword of Harmodius, the danger is concealed in flowers. Rome is more exposed to the ravages of the malaria than any other city. It is besieged, and the salubrious spots are annually diminishing in extent; 4,000 people die of fevers annually in the Roman hospitals, and 60,000 perish in Italy by the same scourge. *Osia*, with buildings to contain many thousand people, has but 12 men remaining.

Blindness and ophthalmia are common in the south of Italy, and, in the mountains of the north, scrofula and goitres. A goitre is an enlargement of the glands of the neck, which sometimes swell to such an extent, that they overhang the breast. In some districts among the Alps, few people escape an enlargement of the glands. A recent traveler in the Alps says, "In this route, we remarked a great many goitrous swellings; some hanging hideously down like the bag of a pelican, and others just beginning to swell, like an alderman's double chin. I never beheld one without raising a hand to my own neck, to see if all was right; and a pretty woman in these regions runs to a glass in the morning, (though our ladies do this,) to see if that foe to beauty has not appeared during the night. In some parts, however, it is said that goitres are so common, that it is an unfortunate singularity to be without one, and a young woman who is so unlucky can have few admirers." The goitres are not dangerous, nor, unless when very large, troublesome. Cretins, a peculiar kind of idiots, are generally found in the same districts with goitres.

16. *Character, Manners, and Customs.* Italy has a common language, literature, and religion, but no common national character. There is no bond of union, no feeling of interest, or affinity, that binds one state of Italy to another. On the contrary, there is a reciprocal antipathy, a sort of moral centrifugal force, which has dropped the violence, though it has lost none of the intensity, of the feudal times. It is kept alive by sarcasms and proverbial sayings, and the inhabitants of neighboring towns have some general name of insult for each other. These local divisions produce great acrimony, and they are fortified by local customs, dialects, and dress. This disunion of those who should be united, sufficiently accounts for the facility, with which the best part of Italy has admitted the domination of foreign masters.

The revolutionary changes of 30 years, have, however, given an impulse to the public mind, and they have raised the Italian character, especially in the north. In this part, there is an almost infinite moral distance between father and son; there is the difference of centuries, between those who formed their character before the residence of the French, and those who formed it since. Such are the local character and divisions, that, to describe Italy truly, it should be described in detail; for there are many traits of character, that do not pervade all the separate states. The enmity of petty states, is greater than that of empires; for the jealousy partakes somewhat of personal dislike. In Italy, the minor states are ridiculed by the larger ones, and by each other; it is an old jest of Punch, upon the stage, in ridicule of a small territory, to light a candle at both ends, when a petty duke orders him beyond his frontiers, on pain of death, before the candle should be consumed.

The modern Italians are the successors, rather than the descendants, of the Romans. Italy, says her poet, was cursed with the fatal gift of beauty, and she has ever been the spoil of the strongest. Clouds of barbarians have overrun her plains, and the original nations became so blended with foreigners, that the lineage is no longer to be traced. Some few families, indeed,

with an excusable pride pretend to trace their descent from the Romans; and two there are who boast the blood of Fabius Maximus and Publicola. Heraldry, however, is seldom very precise. The Italians have ardent temperaments and poetic imaginations; and they act more from impulse or passion, than reflection or principle. No people who have lived since the best days of Athens, have had so much perception as the Italians, for the beautiful. The first natural objects, that draw their eyes, are peculiar to their own beautiful country. The skies are so soft and clear, that it is said, proverbially, and almost without hyperbole, that the moon of Naples is brighter than the sun of England. Every distant mountain, or headland, is bathed in purple light, and every sun rises and sets "trailing clouds of glory." The genius of Claude can be estimated only in Italy, for nowhere else are found the skies that he painted.

The language in which the infant Italian first lisps, is like the murmur of music; every sound is open and labial. The first country, over which his eye ranges, is unsurpassed on the earth; it has festoons of vines, purple with gushing grapes; and groves of oranges, bending with golden fruit. The churches, where the youth pays his wondering devotions, are the perfection of human art, the most splendid and "solemn temples" ever reared by human hands. The ruins, in which he plays with his mates, are remains, in which no time can obliterate the beauty; and the paintings, the frescoes, and the sculptures, that often chain his attention, all combine to give the direction of his genius to the graceful, the beautiful, and the ideal.

"We gaze and turn away, we know not where;
Dazzled, and drunk with beauty: till the heart
Reels with its fulness; there, forever there,
Chained to the chariot of triumphant Art."

The statues, those calm and majestic intelligences, the impressive congregation of the silent, exert a magic influence over the soul. Feeling and thoughts, they have not; but they unlock, in the beholder, the fountains of both.

"The place became religious, and the heart run o'er
With silent worship of the great of old;
The dead, but sceptred sovereigns, who still rule
Our spirits from their urns."

Few of the Italians lead a domestic life; their fine climate permits them to pass almost all the time without shelter, and their social organization gives them little taste, or capacity, for domestic enjoyment. A state of society, execrable in itself, and pernicious in all its consequences, is too general in Italy. Marriage is not a bond, but the reverse;—it is perfect freedom from all restraint. Unmarried females are generally excluded from society, in convents, or in the garrets of palaces. The married have everywhere more freedom, than an evil custom has rendered consistent with modesty. The custom of *cicisbeism*, is on the decline; yet, in all places, the married dame is allowed to retain the cavalier servente; and in some, it is not easy for a married lady, who has none, to avoid ridicule. Napoleon, indeed, directed, that no married parties should be received at court, if they came not together; but this innovation lasted but for a short time. In a state of society like this, the females will, of course, excel in the syren accomplishments; and the Italian ladies have few rivals in dancing, singing, and poetry.

It is a consequence of a depraved state of society that morals are, in Italy, without the cognizance of public opinion. Offences against taste may be visited with censure, but no outrage against good morals; no offence against honor or honesty will exclude a man from society, or abate his welcome; nor will a dereliction of modesty bring any discredit on a woman. To be virtuous in such a state of society, is far more difficult, than in better communities; and common virtue here, deserves the honors of heroism. Yet, though the substance is lost, the shadow is preserved; and the Court of Rome, especially, is solicitous to preserve appearances. Here is, at least, an appearance of decorum. A person, indeed, may pass through Italy, or live there for years, and not once be shocked with such undisguised vice, as in one night will intrude upon him in an English city. In England, good and evil are kept distinct; they exist in their greatest height and depth in the same society, but they are never so blended, that one could, for a moment, be mistaken for the other.

In Piedmont, the character, manners, language, and dress, are generally French. The in-

habitants, like all mountaineers, are much attached to their country, and though many of them wander over Europe with a hand-organ, a marmot, or a dancing bear, they return, when, after many years, their frugality has obtained a small sum which is independence in their own indigent country. In Lombardy, which has for many years in the present century had more freedom than the other States of Italy, the traces of it are found in liberal principles, a better system of education, and a better organization of social life. Since the expulsion of the French, the old distinction of classes has been somewhat revived; the highest class is the nobility, but an equally respectable and intelligent one, the *Cittadini*, was admitted by Napoleon, at court. This class is composed of the liberal professions, the small-landed proprietors, &c., and it embraces a great portion of the worth of Milan.

The Tuscans are a gentle and kind people, and seldom yield to violent impulses, like their southern neighbors. They are, to a great degree, charitable; and some of their benevolent institutions have been in uninterrupted operation for 500 years. The *Misericordia* is a society highly characteristic of the Tuscans, and is extended over all Tuscany. The members, who are of all ranks, even the highest nobility, hold themselves ready, at the sound of their bells, to assemble for purposes of charity. These are generally to remove the sick or wounded to their hospitals, and to bury the dead. Each member has a loose robe, which covers him entirely, and in which 2 holes are left for the eyes. These societies have large funds, which they bestow in charity. The exertions of the associations have not been relaxed in several plagues. The amiableness of the Tuscans is shown in the scarcity of crime, and dread of capital punishments. There is not, for years, an execution; and at the last, in Florence, the city was deserted by half its inhabitants. Those, who could not go, crowded the churches, and their appearance indicated a general calamity. The character of the people, the fine climate, and lively cities, make Tuscany the residence of many foreigners, who generally esteem Florence the most delightful city of Italy. The society at Florence is intelligent and refined. The nobility have lost much of their ancient wealth, acquired in commerce, and they hold it to be derogatory to engage in commercial pursuits. Pride, however, is seldom consistent, and they feel no shame, even princes, in selling wine and oil at retail, under the direction of their stewards, in the cellars of their palaces. The signs, in this petty traffic, are broken oil-flasks, hung at the window.

At Rome, it has been said, that the greatest ruin is that of the national character. Certain it is, that at Rome there are few Romans like Cato or Regulus. The few, who arrogate to themselves the characteristics of the ancient Romans, are the *Trasteverini*, who live across the Tiber. They are jealous, quarrelsome, and ferocious; and more ready to shed blood on slight provocations, than any others of their irritable countrymen. They call themselves *Eminentissimi*, as all barbarians designate themselves by a term of superiority. The murders most common in Rome, as in all Italy, are those which arise from sudden impulse, and are chiefly confined to the lower classes, all of whom are easily heated by wine, though few are intemperate. Simond states the number of murders in Rome to be about one a day, but this computation seems quite too large. There is little disposition in the people to arrest a murderer, or indeed in any case to interfere to aid the execution of the laws. The churches and convents are sanctuaries, and even the streets and squares in front of them. One murder is often avenged by another, when it is not atoned for by a sum paid to the family of the deceased. The murders are almost always committed with knives, the use of firearms being universally considered atrocious.

The Romans, generally, are the least cheerful of all the people of Italy, though at the Carnival their gayety is without bounds. It would seem, from their dispositions, that to live among the wrecks of former greatness, has a depressing effect upon their spirits. On the many holidays that abound in the capital of the Catholic Church, the common people are seen listlessly standing or sauntering about the streets, with no outward sign of cheerfulness; whereas, on holydays, or on all days, at Florence and Naples, the inhabitants seem to be animated by some joyous impulse. But no extremes are more distant than the character at Rome and Naples. But the Romans have much to depress them, besides the ruins of former greatness, which, indeed, make no part of their regrets. They are oppressed, pillaged, bound in ignorance, and steeped in poverty. They live in a gloomy city, surrounded by a desert, and the malaria invades their very dwellings. There is open to them no ennobling pursuit; to talent there is neither excitement nor reward. There are neither the amusements of the French, nor the

domestic life of the English ; and if the Roman is not cheerful by temperament, he has little in his circumstances to make him so.

The relaxations of other nations make the business of the Romans. Poetry is their pursuit, and their discourse is full of it. Every family has its versifier, with sonnets and epigrams for every occasion ; and every circle has its improvisatore, or extemporaneous poet, who versifies to a crowd of listening admirers. The epigram is now the chief outlet for the keen sarcasm of the Romans. Speech is restricted, the press is bound, and even Pasquin and Marforio have ceased to correspond ; but sharp epigrams, directed even against the authorities of the church, circulate freely in society. In those squibs, which were so annoying to Napoleon, the Romans excel.

There are in Rome about 20,000 Jews, who are less strictly dealt with than in common Catholic countries. They are, indeed, shut up at night in their own quarter, which is somewhat crowded ; but so little do they regard this, that when the restraint was once removed, the elders requested to have it again imposed. The Jews are so devoted to traffic, that a stranger is persecuted with invitations to enter their shops. They preserve, even here, in that city which was the instrument of subverting their own, a remnant of national pride, and none of their race have, for eighteen centuries, passed under the arch of Titus, which commemorates the destruction of Jerusalem. They pass the arch by a path at the side. Two Jews make a part of some pageant of the church, in which they are exhibited as converts to Christianity. Yet so hard is it to get new converts annually, that the Pope is sometimes compelled to exhibit the same on several occasions.

Society is not very accessible at Rome, and the Romans are not hospitable. They seldom invite strangers to entertainments ; their houses have little furniture, and their palaces are built less for use than for show. Many of them are let for lodgings, and the proprietor occupies some obscure corner. No court or vestibule is lighted, and all visitors at night carry a lantern. In Rome, wherever the stranger visits, the servants of the house, who usher him in or out, or take his hat and cloak, come, on the next day, for the standing vails established by custom, or about three pauls each. In Bologna, all visits are made at the boxes of the theatres, and this is the only city in Italy where young unmarried females are admitted to society as in England.

None of the higher class in the Roman State, and few in all Italy, live in the country. All dwell in cities, and the peasants are deprived of the advantage which is always derived from the residence of the landed proprietors. All the operations of agriculture are imperfect, and all the implements rude. The very wine and oil are often spoiled from want of skill. Agriculture is not the road to wealth ; it is hardly a means of support ; and the peasants are generally beggars. Rome, Naples, and the towns of the south, are infested with mendicants, whose distress is not always assumed, for in this country of fertility many are without food. The stairs of palaces, the porticoes, and the churches are the lodgings of the miserable many who live on the scanty avails of public charity. The poverty extends to all ranks ; and the traveler is solicited to relieve the noble as well as the peasant. Veiled females kneel in the streets, holding out their hands in supplication ; others cover their blushes with masks ; while the monks solicit for the souls of the dead, the alms of which are forthwith applied to the comforts of the living.

The inhabitants of the Neapolitan territory preserve the levity and cheerfulness of their Greek ancestors ; and they have a vehemence of character that seems suited to their volcanic soil. All their pursuits, whether of pleasure, devotion, or gain, inspire them for the moment with the ardor of a ruling passion. The Arnauts of Calabria are a fine race of men, hardy, and brave, but less cheerful than their countrymen of the plains. Naples is one of the gayest cities in Europe, as Rome is one of the most gloomy. The climate is delicious ; and the Neapolitans, with as few domestic tendencies as the Romans, and with a better climate than that of Rome, live principally in the streets and squares, and on the quays. There, in the open air, are the benches of mechanics, the fires of cooks, and the stages of mountebanks. The streets swarm with crowds of all ranks, all active, yet all idle ; doing nothing, and yet seldom at rest. Everything that is said or done has a spice of violence ; two people talking together gesticulate like madmen ; the little calashes are driven up hill and down, at full speed, and a salesman announces his wares as fire is cried in more quiet cities. It is easy for a stranger to see, that he is among a people much disposed to enjoy to-day at the expense of to-morrow. In no other city are seen so many groups of the poorest rabble in boisterous merri-

ment. A few grains to purchase wine and macaroni, will raise one of the *lazzaroni* above all the ills of mortality for a day.

The *lazzaroni*, a race of idle vagrants, are a large class at Naples ; and the city would lose half its characteristics to be without them. One of these is the model of Diogenes, and though he may never require the shelter of the tub, it is his pleasure, as it was that of the cynic, to lie in the sun. The wants of nature in this climate are few ; less food is needed than in colder countries, less clothing is worn than in any other civilized capital, and less shelter is necessary than that which is sought by some of the birds of the air. The *lazzaroni* are ignorant, but shrewd. The circle of their thoughts is limited ; but if they are attacked within this compass their adroitness, wit, and drollery are invincible. Madame de Staël remarks, that some of them are so ignorant, that they do not know their own names, but go to the confessor to acknowledge anonymous sins, being incapable of telling him the name of the transgressor. But they are not stupid ; they are sagacious demi-savages, living on the confines between civilization and barbarism, in one of the largest capitals of Europe. No stranger, unless a king, is titled under his merits, and a plain man is even sometimes addressed as *Majesty*. The *lazzaroni* address every one from whom they expect to extract a grain, as "Excellency," and the title is liberally applied on all occasions, even in a simple negative or affirmative, as "*si Eccellenza, no Eccellenza*."

They are without hypocrisy, for they make no pretensions to virtue or honesty. If detected in picking a pocket, they will but laugh, and if accused, will say, that a poor man is not expected to be a saint. A stranger perceives, in all people with whom he deals, an intention, and often a combination, to cheat him, and soon learns to offer but a small part of what prices are demanded, and to settle the price before purchasing. His valet de place takes him to tradesmen, with whom he shares the profit ; and when, unattended, the stranger enters a shop, a Neapolitan sometimes follows him, making a sign to the dealer, that he has brought one to be plucked, and subsequently demanding a small sum for the pretended service.

The animal spirits of the Neapolitans are the best gifts they receive from nature, and they are sufficient to disarm every want of its power of annoyance. It is surely no slight accession, to agreeable sensations, to live under a sky forever brilliant and soft, and surrounded by objects of surpassing magnificence and beauty. The tendency of these is to promote cheerfulness. It is an era in the life of a foreigner when he first beholds that unrivaled bay, with its natural pharos, Vesuvius ; that noble city, to which the ancients prefixed a word expressing pleasantness ; and that enchanting region of vines, aptly called the *campagna felice*, or happy country. These things, that are so striking to a stranger, cannot be lost upon the native, though they may dispose him to a life of indolent enjoyment. This seducing climate has ever enervated the courage of men, and subverted the modesty of women. It was the region to which the rich and luxuriant Romans tended, and the shores of Baia were lined, as with a colonnade, by the continued porticos of villas and temples. Men who held provinces elsewhere, were solicitous of possessing a villa here.

17. *Amusements*. The opera is the great national amusement of the Italians, and a taste for it has spread over Europe. The decorations and dresses are splendid, and in perfect character or keeping, while the music is of the highest grade. An opera is a play set to music, and sung ; and the ballet which follows it, is a play performed in pantomime, by a corps of dancers. Othello itself has been performed as a ballet. Though unnatural combinations, the opera and the ballet are capable of affording much entertainment. The most splendid operas are La Scala, at Milan, and San Carlo, at Naples. There are minor operas in every considerable town.

Italy can hardly be said to have a drama, though theatres are numerous ; the plays of Alfieri and a few other good writers, are not adapted to the stage, or to the political state of Italy. The drama, however, has been cast into a regular form, chiefly by Goldoni, and the old national *commedie dell' arte* are becoming disused. These are the mere plots or incidents in which the dialogue is left to the invention and humor of the actors, which, in this improvising country is seldom found wanting. The characters are seldom varied, though the plots are changed. The persons represented give opportunities to ridicule the different dialects and local characters ; they are the Pantaloon of Venice, the Polichinello of Naples, the Rogue of Ferrara, the Doctor of Bologna, &c.

Actors are low in the estimation of the Italians. A *prima donna* goes round to solicit attendance at her benefit, and sits at the door to receive the money for tickets. The prompter

appears on the stage, and often talks with the females in the pit. The musicians, in the minor theatres, extinguish their candles between the acts, and put them in their pockets. At Rome, the theatres are built only of wood, from a fiction of state, that they are temporary. The police even pretends to know nothing of the existence of them, yet the authorities take offence when parties are given on play nights, which detract from the profits of the theatre, and the consequent revenue to the state. No word or sign of disapprobation is allowed at an Italian theatre; and to hiss at one in Rome would subject the offender to be taken to the cavaletto, a kind of stocks, whipped, and carried back again to his seat. The theatres have names and devices like ships, and also mottoes. The *fantoccini*, or puppets, are a general amusement, and the best are at Rome. They are managed with much skill and effect. The Italians are somewhat addicted to gaming, and this disposition is increased by standing public lotteries; though averse to risks in all things else, in gaming they lose all prudence, and venture upon the most ruinous stakes.

The amusements of the Carnival, though somewhat on the wane, are still sufficiently attractive to draw 7 or 8,000 English to Rome, where the Piazza di Spagna has the appearance of an English town. The sports of the Carnival are ushered in by a public execution, for which a malefactor, or more than one, is reserved. The Corso, the principal street of Rome, is the scene of the Carnival. The windows and balconies are filled with people, and there is in the street a dense and ever-moving crowd, all in masquerade. The carriages are, many of them, devised for the occasion, and some of them represent ships, temples, and classic pageants. The coachmen are commonly disguised as old women. All dresses and characters may be assumed, except those of the clergy. The masks are worn for defence as well as for concealment or show, for there is an incessant tempest of sugar-plums, or rather of a base counterfeit, made of lime. The people have bags or baskets full of these, and all pelt each other. Childish as this is, it is followed with so much zeal, that it becomes very amusing.

At the close of day, several spirited horses, without riders, are started from the head of the Corso, and goaded by little points, that are made to flap against the flanks. The crowds open to give space, and the horses are stopped at the foot of the street, after running about a mile. Then each one of the immense concourse lights a candle, with which he has furnished himself, and a scene of uproar commences, each one trying to extinguish his neighbor's light, and to preserve his own. These amusements of the Carnival last 3 days, and they are similar in all the cities. It is extremely creditable to the Italians, that in these saturnalia, where all people mingle, there is never a breach of order, or of decorum. The same could not be said of such a masked multitude in any other country. "In Venice, Tasso's echoes are no more;" but they still resound in Naples. It is very common, on the quay, or in a square, to see a motley crowd collected round a man, who reads a portion of the *Jerusalem Delivered*, which he seasons with a great degree of action. Tasso, of course, is a favorite, and the common people call him Rinaldo. Stories are read or recited in the same way, at the most interesting passage of which, the reader or relater pauses, to collect his dues, by passing round his hat.

18. *State of the Arts, Science and Literature.* A history of Italy, would include a full account of modern art, of which the monuments are chiefly in Italy, or so many of them, that this country is the only school for artists. Sculpture has, at the present day, attained to greater excellence than painting. Thorwaldsen, a Dane, the son of an Icelander, was lately the greatest sculptor. He had an original, but somewhat erratic genius; his statues have much merit, and his reliefs have not been surpassed, but in antiquity. Had he lived 50 years before, he would have secured a greater fame; for it is perilous, even for excellence in the art, to be contemporary with the works of Canova, who has drawn from marble the most perfect forms, that have been created since the best age of Grecian sculpture. Of an obscure parentage, poor, and seemingly destined to be a village stone-cutter, at the age of 15, the aspirations of genius carried Thorwaldsen to Venice, and in 15 years more, he erected, in St. Peter's, the monument to Ganganelli. Some of the works of Canova are so beautiful, that it has been denied, that he had sufficient versatility of powers to express majesty or grandeur. But his *Perseus*, *Pugilists*, *Hector*, and *Washington*, are incontrovertible proofs to the contrary. The *Pugilists* are the only modern statues in the Vatican. One figure stands defenceless, with his hand raised over his head, while the other is about to deal a single blow, in which, by a previous agreement, he was not to be resisted, and which, according to the Greek story, that Canova has represented, occasioned immediate death. The statue of *Washington* was lately burnt in the Capital of North Carolina. It was a favorite work with the artist. The *Venus*,

at the Pitti palace, is, perhaps, the most admired, of all the works of Canova. It represents, like the Venus de Medicis, a shrinking female ; she has been surprised, without her dress, and has caught it up, and presses it before her. The statue of the princess Pauline Borghese, is said to be exceedingly beautiful, but it is not permitted to be seen.

Sculpture, as well as painting, revived with the dawn of liberty, in Italy ; and it attained to its perfection in the republics of the middle ages. The founder of modern sculpture, was Nicolo Pisano, before the close of the 13th century ; and, in a succeeding age, his grandson carried the art to Florence, which became its home. In the 15th century, 6 great masters became competitors for the same work, at Florence, the carving of the bronze gates of the Baptistery, which was assigned to Ghiberti, a youth of 22 years, and which, in 40 years, he completed so well, that M. Angelo pronounced the gates to be "worthy of Paradise:" an admiration that posterity has justified. At this period, Donatello was conspicuous for his own works, and the merits of his pupils. In the 16th century, and for about three-quarters of it. Michael Angelo Buonarrotti presided over painting, sculpture, and architecture, and left imperishable monuments in all. The Last Judgment, is the boast of modern painting. It has more than 300 figures, and the subject is well suited to the terrific genius of the artist. The statue of Moses bears the impress of the same original mind ; and the vast dome of St. Peter's, the most wonderful work of human hands, is the only production of art, that awes the beholder like the works of nature.

The sculptures of M. Angelo are few, and the most of them are unfinished. He generally cut boldly into the marble, without the usual models in clay, and with rapid strokes brought forth the form, of which there existed no image, but in the vivid conception of his own mind. His genius was wonderful, but it was not of the kind that attracts human sympathy and feeling. It does not act upon the affections, like the milder power of Raphael. His genius has been called the epic, and that of Raphael, the dramatic, of the art. The best of the imitators of M. Angelo, were Bandinella, and John of Bologna, who was the most eminent of his pupils.

Sculpture afterwards passed into the affected hands of Bernini and others, who robbed it of simplicity ; and it was losing its graces, and almost its existence, when Canova raised it to its ancient glory. The modern sculptures of Italy, are too numerous even to be named in our limits. They are in churches, palaces, museums, and squares. They are in conspicuous places, and open to the inspection of all. There are, at this time, many sculptors in Italy, inferior, indeed, to Thorwaldsen, whose works adorn the houses of the wealthy in Europe and America.

Painting was revived at Florence, under the pencil of Cimabue, early in the 13th century. Giotto, Massaccio, and others, advanced it ; but Leonardo da Vinci raised it to a perfection, that has hardly been exceeded. His sweet Mona Lisa, has been surpassed only by Raphael. His Medusa's head, the work of his wondrous boyhood, is one of the chief treasures of the Florentine Gallery. It is painted on a shield, and the terrific snakes, which form the hair, owe their appalling effect to his diligent study of the reptiles, collected from the fens, and kept in his closet. The Last Supper, of Leonardo, is more generally known ; it is multiplied in prints, and especially in the matchless engraving of Morghen. The original is much defaced ; but fortunately, there exist excellent copies. It is in the refectory of the Dominican Convent, at Milan ; it has suffered from damp, neglect, repairs, and wilful violence. Soldiers have used it, as a target ; and the monks, to lessen the distance between the kitchen and the refectory, or the spit and the table, have caused a door to be cut through the princial figure, that of the Saviour. About 20 years later than Leonardo, Michael Angelo Buonarrotti was born, whose great works, in this art, are the Last Judgment, and the frescoes on the walls and ceiling of the Sistine Chapel.

Contemporary with the great Florentine, was Raphael, who died on his 37th birthday, bequeathing to the world many works, the perfection of all that is excellent and tender in sentiment, or glowing in art. In 12 years, he completed the frescoes of the Vatican, and the Farnesina, and others, amounting to many hundred figures ; designed the Cartoons, and produced numerous oil paintings, which are now scattered over Europe. The most wonderful of all, is, perhaps, the Transfiguration, which was his last work, finished just before his death. The school of Athens, one of his frescoes in the Vatican, is encyclopedic ; it contains 52 figures, admirably grouped, in front of a Grecian portico. Aristotle and Plato are engaged in argument ; Diogenes, an inimitable figure, is lying on the steps, and Socrates is chiding and exhorting Alcibiades. This, like all the frescoes at Rome, is injured by the damp, and the

smoke of torches, while its preservation is utterly neglected. No other human being has been able, like Raphael, to give such glimpses of sinless purity, that seem to have been breathed upon him from a better world.

Our limits will not allow any other, than the most general view ; and the bare outlines of Italian paintings would require volumes. Italy is peopled with "beings of the mind"; offsprings of the genius of Correggio, Tintoret, Claude, Caravaggio, the Caracci, Domenichino, Carlo Dolci, Guercino, Guido, Salvator Rosa, and many other masters. The number of good paintings seems immense ; collection after collection, and museum after museum, open upon the traveler ; and the walls of hundreds of edifices are covered with frescoes, to examine which, is the work of months. The frescoes contain the best productions of the art. The best living painters are Cammucina, at Rome, and Benvenuto, at Florence. The former is the best draughtsman in Europe, but neither of them have the great requisites for excellence. The art of Engraving, with the exception of Morghen's works, is not in so high a state in Italy, as it is in Great Britain. Morghen, however, is without a rival. At Rome, the art of cutting cameos from oriental shells has attained to a high perfection. There is here too a public establishment for mosaic, by which any picture may be copied with the utmost delicacy and fidelity, in materials not subject to fading or decay. The materials are small pieces of glass of every shade of color, and they are laid in a durable cement. The *scarpellini* or workers in stone, are peculiar to Rome, where foreigners supply them with many orders for miniature models of various antiquities. It is characteristic of Italy, that taste is cultivated before comfort is secured, and that, though the arts of ornament are high, those of use are almost unknown. Music is as natural to Italy as sunny skies. Her vocal performers and composers are celebrated throughout the world, and the chief graces and beauties of modern music have been derived from them. Vocal music, as not necessarily requiring either study or exertion, appears peculiarly adapted to the indolent character of the Italians. A fine voice is a gift from heaven, which man enjoys in common with the birds, and which seems to arise like a spontaneous voice of gratitude from amidst the vineyards and orange-blossoms of their cloudless land.

Yet we do not find that music was cultivated as a science by the Italians so soon as by many other nations. It was not till the beginning of the 17th century, that the opera or musical drama was introduced in Rome and Venice ; nor till the beginning of the eighteenth century at Naples. Till the time of the elder Scarlatti, Naples was less diligent in the cultivation of dramatic music than any other Italian state. Since that time, all the rest of Europe has been furnished with composers and performers from that city, and the opera of San Carlo at Naples is unrivaled even by the Scala at Milan. The Italian opera has been imported into all the great towns in Europe, and the singers are engaged at an enormous sum. Nicolino Grimaldi the Neapolitan, was the first great Italian singer who appeared on the London stage ; soon after the two celebrated rivals, Faustina Bordoni, and Francesca Arzzoni, excited as violent and inveterate a party spirit in London as any that had ever occurred relative to matters either theological or political. The caprice of a *prima donna* is proverbial ; and the famous Farinelli, celebrated for the force, extent, and mellifluous tones of her voice, was heard to exclaim in rapture, "There is but one God, and one Farinelli !" Gabrielli, the daughter of a cardinal's cook in Rome, was long famous for her exquisite voice, and unbounded caprice.

The flood of harmony with which the voice of Catalani used to enchant her auditors will long be remembered ; though the powers of that splendid singer are beginning to decline. Giudita Pasta is now unrivaled by any modern *cantatrice*. Her powers of execution are perhaps less wonderful than those of Catalani, but her taste is infinitely superior, and the judgment of Talma pronounced her to be the greatest singer and actress, together, who had yet appeared in Europe. The Italians are sensible of her merit, and a medal was struck in her honor some years since, by order of the late Pope ; but the Italians are apt to be ungrateful towards those who have exerted themselves for their amusement, and when Grassini a few years ago, forgetful of the effect of time upon her once splendid voice, reappeared on the boards of La Pergola at Florence, the ungrateful audience who had so often listened entranced to her melodious notes, unanimously hissed her off the stage. Rossini, the great modern composer, has long reigned unrivaled in Italy, and since the death of Weber, in Europe. There are not, indeed, wanting those who accuse the grand *maestro* of having corrupted the modern taste, of having lowered the standard of music from the tender dignity of Mozart's style, and bestowed upon it a redundancy of ornament fatal to science.

Rossini frequently copies himself. His style may be seen through all his numerous works,

but although he is perhaps too uniformly flowery, gay, and tender, he has given proofs of higher powers in his *Tancredi*, *Semiramide*, and *Moise in Egitto*. It is probable, however, that the music of Rossini which now enchants the world, will be forgotten long before that of Haydn or Mozart, or at least that posterity will bestow a more sober judgment upon his works, than the present age, bewildered by his succession of glittering melodies, is capable of pronouncing.

The national airs of Italy are suited to her soft and mellifluous language, which Metastasio has pronounced to be "*la musica stessa*." Singing is common among the Italian peasantry. The Venetian barcaroles, and the songs of the Venetian gondoliers of alternate stanzas from Tasso's *Jerusalem*, give proof of that love of music and poetry which is there inherent in the lowest classes. Even among the tuneful sons of Italy, the Venetians are remarkable for their taste in both. The songs of the gondoliers, which are rude and hoarse when near, are inexpressibly charming when heard from a distance. The sound is not dismal, but plaintive in the extreme.

The ancient literature of Italy has overspread the world, and the Latin has become a universal language. Italy was the first country in which knowledge was cultivated after the dark ages. The magnificent remains of the Romans, tended to excite in the Italians a desire to investigate their learning. For two centuries Italy was again the luminary of Europe. Poets and other writers of excellence preceded Dante, who was born in 1265. He wrote in a new and unformed language, and his use of it is still a classic standard. Posterity has estimated him better than his own age, and perhaps ranks him higher than he rated himself, though in his great poem he assigns his own place after Homer, Virgil, Ovid, Lucan, and Statius. Petrarch was the ornament of the 14th century, and it is one of the least of his honors, that he was crowned in the capitol. Boccaccio, his friend, with inexhaustible invention and wit, did much in his *Decamerone* to polish his native language. Ariosto marks the 16th century, and he was followed by Tasso; their works are known in every language that has a literature. Galileo, Machiavelli, Davila, and Guicciardini, are great names in science, politics, and history; and there are many others in almost every department of literature and science. With the Italian governments of the present day, it is a part of the policy of self-preservation, to depress the soarings of intellect; yet Alfieri stands forth the monument of his age in Italy; and the works of Casti, Monti, Pindemonte, Muratori, Botta, and others are honorable to Italian literature.

19. *Religion.* The Roman Catholic religion is established throughout Italy, and nowhere else has it so many splendid accessories, addressed to the senses and the imagination. There are Protestant communities in Piedmont, which, however, are much restricted, though generally the Italians are not intolerant, and Protestants, Greeks, and Mussulmans may approach the Pope himself. The English at Rome, have on the great festivals of the church a conspicuous place assigned them. This gave occasion for one of the Italian pasquinades. Marforio is supposed to warn his correspondent Pasquin, that he would find no place at the solemnities to be held in St. Peter's; the reply was, "pardon me, I have turned heretic."

The clergy are numerous; many of the churches are rich, and all of them are highly ornamented. The Italians are fond of religious processions, in which they have much faith. On occasions of public calamities, as fires, pestilence, and, at Naples, eruptions of Vesuvius, long processions go through the streets carrying images of saints and consecrated relics. There are many shrines, which many pilgrims visit. To St. Peter's a few poor peasants annually come, with staff and scallop shell, induced by a small gratuity given by the Pope. But the most numerous pilgrims at St. Peter's are those of taste, and not of devotion. The Holy House at Loretto has a greater reputation with the devout. It is believed to be the actual house of the Virgin Mary, brought by an angel to the spot on which it stands. A scribe is employed to register the gifts made to the altar, which include not only the mites of the poor, but the donations of kings. At Rome the Scala Santa, or marble stairs of Pilate's house, which, as the people believe, Christ ascended, are now ascended by his followers on their knees. All classes may be seen toiling up them in this way, though there is another passage by which they come down. Relics of all kinds abound in countries where there is more faith than knowledge; and they are as numerous in Italy as in Spain. Some of them, indeed, have returned to "strange uses." The chair of St. Peter, which is kept in his church, too sacred for inspection, was yet examined by the sacrilegious French; and there was found upon it in Arabic, the Mahometan confession of faith; "there is no God but God, and Ma-

homot is his prophet." It was probably some pillage of the crusades. But heathen relics have always been converted to the uses of the sanctuary, and many classic observances are now repeated as rites of the church. The *Metamorphoses* of Ovid are represented on the doors of St. Peter's ; and the bronze image of the Saint within, whose toe the devotees have kissed away, received, eighteen centuries before, the incense of heathen priests, as a statue of Jupiter. An Englishman once took off his hat to it, not as St. Peter but as Jupiter ; and requested of him, that, should he ever recover his power, he would reward the only individual that ever bowed to him in his adversity. Other images have been converted ; Apollo has become David, and Minerva, Judith, while antique vases are used as baptismal fonts.

The Italian sailors, like the Grecian, put themselves under the protection of the Virgin Mary ; and ships have the images of saints at the bows. In storms, they trust as much to prayer as to exertion or skill, and in calms, if impatient for a wind, do not fail to abuse St. Anthony and others in the calendar. This, however, is more frequent among the Spanish sailors.

Marriages in Italy are seldom arranged by those the most interested. Young females are secluded in convents, or at home, till a match is agreed upon by the parents, when the marriage is celebrated with considerable show. The funerals at Rome are attended with long processions, and the dead are buried in churches. At Naples, the deceased is carried to the grave in an open carriage, splendidly dressed, and with the faded color restored by paints. At the grave, the finery is stripped off, and the corpse tumbled in the general tomb without ceremony or decency. There are 365 pits in the Campo Marzo, of which one is opened every day, and then shut and sealed till the year brings round the day for it to be open. All who die are thrown promiscuously into these pits. Perhaps no people are so indifferent as to the fate of their own bodies or those of their friends, as the Neapolitans. *Burking* could never exist at Naples ; and the abundance of subjects has much advanced the science of surgery there.

20. Laws. The institutes of Justinian, together with the code and Pandects, a compilation of the old Roman law, still continues to form the foundation of the Italian laws. Tuscany, under the late Duke, was celebrated for its mild code, and for the abolition of the punishment of death, the great remedy of crime and the exact administration of justice. But this was before the late political disturbances. But in few of the States of Italy are the laws so well administered, that the subject can appeal to them with much confidence of obtaining justice.

21. Antiquities. "The ruins of Italy," it has been said, "are the field of battle, where Time has fought against Genius, and those mutilated limbs attest its victory and our losses." Of the Roman antiquities, we can mention but few ; the most interesting are at Rome, where there are still many yet undiscovered ; for the government employs only a few galley slaves in excavating ; and although foreigners are allowed to search, they are not permitted to carry any sculpture away. Many of the best ancient sculptures were found under the ruins of the edifices where they stood, or imbedded in the accumulation of earth, that now lies above the level of the ancient city. The Roman Forum is 15 or 20 feet above the ancient surface, and elsewhere the difference may be from 12 to 30 feet ; the hills have been sunk, and the valleys raised. In many places where this accumulation has been examined, valuable antiquities have been found ; and the earth of Rome yet contains mines richer than those of gold. That the city which received the wealth of the world was profuse in all ornaments of elegance and taste,

is apparent from the numbers of those that remain, and from the quantity found even in the distant towns of Pompeii and Herculaneum.

The bed of the Tiber is supposed to contain treasures of art, as well as of wealth, as the inhabitants, when an enemy was at hand, would naturally throw their valuables into the river. The Jews offered to divert the stream from the channel, if they might be allowed to possess what they should find.

The temples are in various states of preservation ; some are indistinct ruins, others have a few pillars standing, and others still retain their original form. The most perfect, and perhaps the most beau-



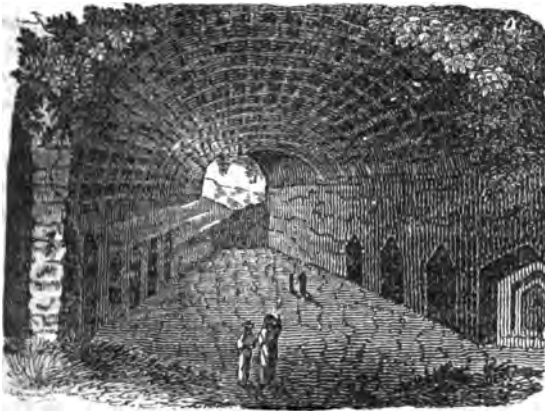
tiful of all, is the Pantheon of Agrippa. It is a circular edifice, with a dome and colonnade. The light is admitted from above only through a circular aperture in the top. The gilding, the bronze, and the statues are all removed. The Pantheon was anciently ascended by 7 steps, but it is now on a level with the earth. The architecture of the portico is perfect; every moulding is a model of art, and is whitened with the plaster of casts. Over the portico is the original inscription of Agrippa, and there is but one other inscription on a temple in Rome. The names of many temples are doubtful, though antiquaries decide with promptness, for in Rome they are as credulous as the devotees. On each side of the portico are two hideous belfreys, erected by the authorities of the Church. The temple of Antoninus and Faustina has also an inscription. It has a fine portico, and a part of the inner wall of the ancient edifice. It has been repaired and used as a church. The temple of Vesta has around it a circular colonnade of 20 fluted Corinthian columns. About the Roman Forum are the less perfect remains of other temples, as the Temple of Peace, of Jupiter Stator, Jupiter Tonans, Concord, Janus, &c. The ruins of temples are found in all Italy, but perhaps the most impressive are those of Pæstum. They are little more than 50 miles from Naples, discoverable by a telescope from Salerno; a distant view is had from the high road of Calabria, yet they remained undiscovered until the last century. They are not vast in extent, yet the proportions are such, that they have an air of grandeur and majesty. In simplicity and grandeur, they are some of the most impressive monuments on earth. The pillars and entablatures remain; the inner walls have fallen.

Of the amphitheatres, the most magnificent is the Coliseum, built by Vespasian and Titus. The area is about an acre. The circumference is 1,612 feet. Here were combats of wild beasts with each other or with men, the gladiatorial combats, and here the early Christians were cast into the arena to be devoured by beasts. The form is an ellipse; there are 3 rows of columns above each other, each of a different order. The entrances were so numerous, that each spectator went at once to his seat, and the immense multitude were quickly and safely discharged. It was no ruin in the 13th century, but it was afterwards pillaged for building materials, and would not be safe perhaps even now but for a sagacious rite, that consecrated it as a church. There is an altar and a hermit in the Coliseum. The rents in the walls give support to numerous plants, and there are little less than 300 different kinds. At Verona is another vast and splendid amphitheatre, in far better preservation, and at Pompeii is one more perfect still. At Capua, Puzzuoli, and elsewhere, are the indistinct ruins of others. The only theatre at Rome is that of Marcellus, of which part of the three lower arcades remain; so perfect in style, that they have often been used as models. The theatres of Pompeii and Herculaneum are in perfect preservation. They are of a semicircular form, and have not deep stages. Only one circus remains, the walls of which, though shattered, indicate the form.

The chief triumphal arches are those of Titus, Constantine, and Septimus Severus. The arch of Constantine is the most imposing, from its better preservation; but that of Titus, erected to commemorate the conquest of Jerusalem, is of better architecture and sculpture. On it are represented the spoils of the temple, as the tables of the law, and the seven golden candlesticks. The column of Trajan is one of the most perfect remains of antiquity. It is a circular pillar, rising to a great height, and encrusted even to the top, with a spiral succession of bas reliefs. The subjects are the emperor's actions; and he appears at a hundred different points as emperor, general, or priest. Ancient costume and tactics may be studied in these sculptures. It formed but one edifice, in the Forum of Trajan, the most splendid in Rome. The rest are prostrated and buried, except a colonnade of broken granite pillars, excavated by the French and set upon their bases. The Column of Marcus Aurelius, called also that of Antonine, is imposing but of inferior sculpture. It stands on the Corso.

The Romans were more attached to cleanliness than their successors are. There were in ancient Rome 754 private baths besides those public ones, whose ruins are so impressive. The city has now but a single bath which is attached to a hotel; yet Rome, though in an arid situation, is better supplied with water by aqueducts than any other city.

After the Coliseum the greatest ruin in Rome is that of Caracalla's Baths; they are of prodigious extent, and one hall is 188 feet by 134. The baths of Diocletian were also vast, and something of them remains. The baths of Titus were worthy of Roman magnificence. Some of the roofs of the vaults are painted in arabesques, which were favorite studies of Raphael. His own arabesques in the Vatican have suffered more in 300 years than these in 1,700

*Caracalla's Baths.*

Some of the figures are admirable, but there is no perspective, or light and shadow. At Pompeii the baths are the perfection of elegance and convenience.

The obelisks were antiquities to some of the ancients ; they were of remote antiquity when Rome was in her splendor. All were brought from Egypt with incredible labor and expense. Yet, when in modern times one (and not the largest) was to be removed a short distance to the Piazza of St. Peter's, years of preparation elapsed, and application was made for advice to men of science over Europe. It was set in its place after fifty-two trials. The obelisks are of one shaft of granite. The

largest, though broken and reduced, that in front of St. John de Lateran, is upwards of 100 feet in height. It is contemporary with the Trojan war. To transport it, the Romans diverted the course of the Nile. The obelisk on Monte Citorio, formerly served as a gnomon in the Campus Martius. The other principal obelisks are on the Esquiline and Pincian, and Cælian hills, in the Piazza del Popolo, and before the church of St. Mary the Greater.

The tombs of the Romans partake of the magnificence of their public works ; the ruins of them line the Appian Way for miles. The most perfect and beautiful is that of Cecilia Metella, the wife of Crassus ; the only tomb which has an inscription. It is a circular edifice, composed of huge blocks of stone ; and the walls are 24 feet in thickness. The sarcophagus has been removed to the Vatican. The tomb of Augustus is large enough for an amphitheatre, and it has circular ranges of vaults, for it was intended for all the emperor's dependants. The tomb of Adrian was also of great magnitude, and so strongly built, that it is at this day the citadel of Rome, the castle of St. Angelo. The pyramid of Caius Cestius perpetuates the name of a man unknown to history ; it is 113 feet in height and 60 in breadth, at the base. At Mola di Gaeta is a ruin supposed to mark the spot where Cicero was killed. The tomb of the Scipio family is a vault, and the sarcophagus of Scipio Barbatus is so elegant that it is often copied. The sarcophagus of the empress Helena is celebrated ; but nothing is more common than these sarcophagi. There are thousands of them, and the swine may be sometimes seen feeding from them. Various funeral inscriptions both in Greek and Latin are set in the walls of an entry, at the Vatican. The catacombs are passages excavated for miles in extent under the city of Rome, and in various directions. They are supposed to have been dug out for materials for building, and they sometimes offered retreats to the persecuted Christians. They were used also as cemeteries, and the bones were formerly seen on a sort of shelves hollowed out in the walls. But they have all been converted to pious uses, and exported as the relics of saints, over the Catholic world. A cardinal had the care of this lucrative traffic. At Naples a great attraction is the tomb of Virgil, or what tradition affirms to be such. It is near the grotto of Pausilippo, in a charming spot, half way up the hill. It is a small arched dome, with a few niches or columbaria.

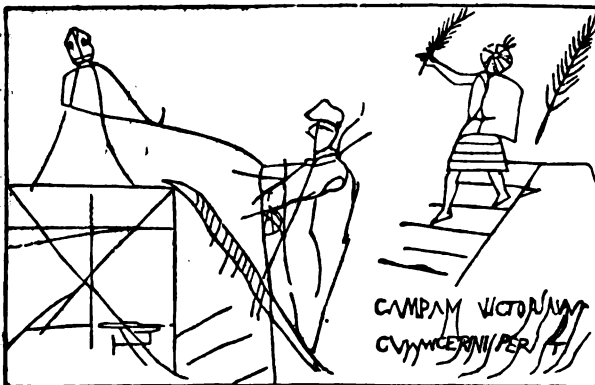
There are some remains of ancient roads, especially of the Appian Way, which is the most distinct at Terracina. It consists of hard hexagonal stones, fitted exactly to each other. At Rome is preserved the first mile-stone on this road. At Rimini, there is an ancient bridge, a great monument of architecture ; but at Rome none of the ancient bridges are entire. The Pons Fabricius has much of the old part remaining, and there is a vestige of the Pons Triumphalis. There is a single fallen arch of the bridge where Cocles sought. The piers and arches of the bridge of St. Angelo are ancient. At Pausilippo, near Naples, the road passes under a hill by what is called the grotto of Pausilippo, which was of remote antiquity in the time of Strabo. It is straight and level, and a little lighted by two orifices from the top of the hill. It is wide enough for three carriages to pass abreast, 40 or 50 feet in height, and about a quarter of a mile in length. Twice in the year the sun shines through it. Nothing can be more enchanting than to pass through the grotto from the Pozzuoli side, and to come at once from its darkness to all the glories of earth, sea, and sky, that belong to the Bay of Naples. The grotto of the Sybil at Cuma, is a similar passage but smaller.

The aqueducts were, perhaps, the greatest works of the Romans. There were 2 of great magnitude, the Martian and Claudian; and a single arch of the latter, makes now the *Porta Maggiore*, the most imposing gate of Rome. This aqueduct brought the water, in all its windings, about 50 miles; and ranges of arches still stretch across the campagna, that excite the wonder of the beholder. The outlet of the Lake of Albano, is a monument of what the Romans effected in the comparative infancy of the State. It is excavated through a mountain, principally of rock, for a mile and a half, and it is still an outlet for the lake. It was made 400 years before the birth of Christ. The Cloaca Maxima, or common sewer of the city, in which, though much obstructed by accumulation of earth, the water still flows, was the work of the kings, and was completed by Tarquinius Superbus. It has stood about 3,000 years, and may yet outlast every edifice in Rome. The passage, when clear, was wide enough for a load of hay; but this should not have too liberal a construction. It is built of large masses of stone, and arched, at least at the outlet.



Pompeii.

is distant 6 miles, and its place was discovered only in the last century. The circuit of the walls, and one-third of the city, only, are excavated. The ashes are carried away, the streets are swept, and nothing but the roofs seem wanting. The streets are narrow, and paved, and the ruts of the wheels are about 4 feet apart. There is a narrow sidewalk for foot-passengers, though there is none in the modern cities of Italy. The houses are small, and of the form now common in Italy, with a court, and rooms opening from it. The rooms were not well lighted, and some received light only from the door. The public places are commodious and elegant; and the Romans, without doubt, lived much abroad, like their successors, and like the French. The temples are all elegant, and some are magnificent. The forum, and the very rostrum, with the steps, are entire.



Sketches on a Wall, at Pompeii.

Pompeii and Herculaneum have been the great "quarry of antiquities"; here we are admitted into the dwellings of the Romans, where everything is so fresh, that we almost expect to see the master enter. He has been dead more than 1,700 years, yet we admire the pictures on his walls; and we gather, from his household arrangements and ornaments, something of his individual character. He was a man contemporary with Titus, and perhaps a soldier, who beheld the destruction of the Jewish Temple. Pompeii was covered with light scoræ and ashes, by a blast of Vesuvius, from which it

In the furniture, even that of the kitchen, we are struck with the elegance, that the Romans carried into the most humble department of life. There is not a lamp or a vase of an inelegant form. The kitchen utensils were of bronze, though some of them were silvered within. Many of them were neatly carved. The signs remain over the doors, and the very scribblings of idlers, on the walls, may still be read. Oil mills were found, such as are now used; steelyards, like ours; and Cupid is represented, in a painting, under a parasol. On the walls, many of the

paintings are excellent, and some represent familiar things. There is a family at dinner, in

which the woman sits, and the man reclines. He is pouring wine into his mouth from a vessel, which he holds at some distance, as is still done in Spain. The students at Eton, when they undergo flagellation, may be certain that they suffer a classic punishment ; for there is a picture of horsing at school, in which the sufferer is on the shoulders of another boy, while his feet are held by others, and the master flogs. There are stamps for marking ; the nearest possible approach to the art of printing. The familiar and common furniture, or ornaments, found at Pompeii, are numerous, far beyond our limits even to name, and they throw much light upon the domestic life of the Romans, and show the wonderful elegance of that polished people.

Herculaneum, being at the foot of the mountain, was covered with lava, and the town of Portici stands directly over it. It is impressive to hear the noise of carriages, like distant thunder, 80 feet above. Herculaneum is, therefore, a mere cavern, which has been partially excavated. The statues, and other antiquities, are in the museum in Naples. The manuscripts were found carbonized, and nearly as hard as stone ; but a method has been invented, by which they are unrolled, and several unimportant treatises have been published.

Before describing the sculptures, it is proper to mention a few remains, that cannot well be classed. At Rome, are still to be seen the consular Fasti, the bronze geese of the capital, and the very she wolf, that was ancient in the time of Cicero ; it has the mark of the electric fluid, which once struck it, and of the gilding, mentioned by Cicero. The Etruscan remains, are the works of a people who were distinguished in the arts, long before the Romans attempted them. The most common, is a kind of Porcelain, or vases of baked earth, ornamented with great elegance. The ancient walls of Rome are 14 miles in extent, though they inclose, at present, much of the desert. In general, they are principally as built by Aurelian.

The sculptures are the most numerous and wonderful remains of the Romans, as well as of the Greeks. Many of great excellence remain, though the best have been lost ; and it is certain that those which exist, are but an inconsiderable part of what once existed. They were the favorite ornaments of a people, devoted to elegance and art. The sculptures, with the medals, coins, seals, &c., are, a great part of them, materials for history. The long line of Roman emperors, the good and the worthless, have left their features, as well as character and acts, to posterity. The series is complete. In them, as in the other busts and statues, is every variety of countenance, that may be seen in the present age ; though, perhaps the features that we call Roman, predominate. Julius, and Augustus Cæsar, Tiberius, Titus, Marcus Aurelius, are common. There are, however, few sculptures of the republic. Cicero yet lives in statuary, and the statue of Pompey remains ; the very marble, before which Cæsar fell, and which was found at the place where the great sacrifice was made to patriotism, — on the spot

“ Where Brutus made the dagger's edge surpass
The conqueror's sword, in bearing fame away.”

It is the statues, that embody the grand moral conception of the ancients. The best are of Greek sculpture, of which many were carried to Rome. The greatest collection of sculpture, as well as of all the arts, are in 3 vast museums ; the gallery at Florence, the Vatican at Rome, and the Bourbon Museum at Naples. At the gallery, in the room called the Tribune, stands the Venus de Medicis, which embodies every human conception of the graceful and beautiful. It is the form of a female, of a woman rather than of a goddess, in an attitude of the most shrinking modesty and grace. It is an era in the life of a person of taste and feeling, to see it ; the impression it makes, is indelible and unrivaled. It marks its excellence, that the most exact copies or casts cannot convey an adequate conception of the beautiful original, though they are scattered over the world. It is above imitation.

The Whetter, in the same room, is a statue much admired, representing a man stooping to sharpen a knife on the floor ; supposed to be the slave, that, while thus employed, overheard Catiline's conspiracy. The Wrestlers form one of the best groups of ancient sculpture ; and these, also, are in the Tribune ; they represent 2 men struggling on the ground, in a manner that gave the sculptor an opportunity to show the greatest development of the muscles ; and they make a study for painters, in drawing. The Niobe, in the gallery, is tragedy itself, and shows the superiority to which the ancients attained in the ideal, above the natural. Her

numerous children are represented as dying around her ; the youngest clinging to her knees as the most helpless. She encircles her with her arms, yet despairing to save her.

At Rome, the Apollo Belvidere is preëminent for grace and majesty. It has the calmness so common and so impressive in the Grecian statues. He is represented as standing, and watching the flight of his arrow, which he has just discharged. It is its greatest wonder, that in looking at this cold and lifeless marble, the spectator is more moved than with anything that has life. He sees before him the creation of a sculptor formed on the conception of immortality ; the human form, and all that it can express, as it might have existed before evil reduced it as the habitation of the fallen mind. Our conceptions of the dignity of human nature are elevated in the presence of the Apollo.

“ A combination, and a form indeed,
Where every god did seem to set his seal,
To give the world assurance of a man.”

The Laocoon is a group exactly described in Virgil ; it represents Laocoon and his two children in the folds of the two serpents, in which they are still struggling. It was one of the most admired groups of antiquity. The dying gladiator is a recumbent statue of a dying man leaning upon his hand. It is justly held to be one of the best remains of antiquity. Next to actual sight, the description of Byron gives the most perfect conception of it. The statues are well nigh innumerable ; but our limits are already exceeded. On the Esquiline hill are two colossal statues, each holding a horse of the same proportions ; on one is engraved the name of Phidias, on the other, that of Praxiteles. In the capitol, is a bronze equestrian statue of Marcus Aurelius, distinguished for good effect, though it has some individual faults. Sculpture was, with the Romans as with the Greeks, associated not only with architecture, but it was carried into every department of life. Vases, urns, sarcophagi, and familiar ornaments, are numerous, and many of them are exquisitely sculptured.

CHAPTER XI. KINGDOM OF SARDINIA.

1. *Boundaries, Extent, and Divisions.* This kingdom takes its name from the island of Sardinia, yet the most important part is upon the continent. This portion forms the north-western extremity of Italy, and consists of 4 principal divisions, namely, 1st. the Principality of Piedmont, with Montferrat and a part of the Milanese ; 2d. the County of Nice or Nizza ; 3d. the Duchy of Savoy ; and 4th. the Duchy of Genoa.* The continental portion is bounded by Switzerland on the north ; by Austrian Italy and the Duchy of Parma on the east ; by the Mediterranean on the south, and by France on the west. It extends from 43° 44' to 46° 20' N. latitude, and from 5° 40' to 10° E. longitude, being 200 miles in length from north to south, and 135 in breadth. The Island of Sardinia, constituting the 5th division, lies to the south of Corsica, and is separated from it by a narrow strait. It is 162 miles in length, and 70 in mean breadth. The continental dominions contain 19,125 square miles, and the island 9,675. Total 28,800.

2. *Mountains.* Sardinia contains several chains of the Alps, comprising the highest summits in Europe. The *Maritime Alps* rise near Savona, and, extending west, separate Genoa and Nice from Piedmont ; then bending north, they divide the latter country from France, terminating near Mount Viso. Their highest summits do not much exceed 10,000 feet. The *Cottian Alps* extend from Mount Viso to Mount Cenis, separating Piedmont from France and Savoy. Several of their summits rise to the height of 12,000 feet and upwards ; the loftiest, *Mount Olan*, has an elevation of 13,819 feet. The *Graian* or *Grecian Alps* extend from Mt. Cenis to the col or pass of Bonhomme, separating Aosta from Savoy. They have about the same elevation as the preceding. The *Pennine Alps* separate Piedmont from the Valais in Switzerland, and contain the highest points in the Alps, rising into regions of perpetual snow ; *Mont Blanc*, 15,732 feet high, and *Mount Rosa*, 15,152. In this chain is the *Great St. Bernard*, 11,000 feet high, remarkable for its hospice, which, standing upon a barren height 7,668 feet in height, and surrounded by an eternal winter, is inhabited by a few monks, who

* The official political division is into 10 intendancies, Aosta, Nizza, Genoa, and Savoy : and 2 on the island of Sardinia ; Turin, Coni, Alessandria, Novara, Cagliari and Sassari.

here devote their lives to the service of humanity. They provide travelers with food, and, if poor, with clothing, and serve them as guides. In the midst of tempests and snow-storms, they issue forth, accompanied by their large dogs of a peculiar breed, for the purpose of discovering and relieving those who have lost their way. If they find the body of one who has perished, they deposit it in their burial vault, where, on account of the cold, it remains for years undecayed.

3. *Rivers.* The *Rhone* forms the northwestern boundary, and receives several tributaries from the Graian and Pennine Alps. The principal are the *Isere*, which enters France, and the *Arve*, flowing through the celebrated vale of Chamouni, which lies at the foot of Mont Blanc, and is unrivaled for the beauty and grandeur of its scenery. The *Po* rises at the foot of Mt. Viso, and receives several large streams from the north and the south, among which are the *Tanaro*, from the Maritime, and the *Dora*, from the Pennine Alps. The *Var* flows down the southern declivity of the Maritime chain, and empties itself into the Mediterranean, after separating Nice from France.

4. *Lakes.* The *Lake of Geneva* borders this territory on the north, and *Lago Maggiore* on the northeast. There are many smaller lakes. That of *Bourget*, in Savoy, is 627 feet above the sea ; it is 10 miles in length, and discharges its waters into the Rhone.

5. *Island of Sardinia.* More than a third of this island is composed of a sandy and stony land, called *macchie*. A considerable part consists of forests and pastures, and the remainder, amounting to 4,400,000 acres is laid out in cornfields, vineyards, olive grounds, orchards, and gardens ; 800,000 acres are devoted to the culture of wheat. The mountains are from 1,000 to 3,000 feet high, and produce silver, copper, lead, bismuth, antimony, and loadstone. Lead is most abundant. The moufflon or wild sheep is common here.

6. *Climate.* In the valleys of Savoy, there is often fine spring weather when the high grounds are covered with snow. In this part, the climate is too severe for the southern fruits. The valley of Piedmont is subject to the cold northerly winds from the Alps ; yet the air is healthy, and the vine flourishes. In the south, the Apennines afford a shelter against the northern blasts ; here the olive and the fruits of the south prosper. Sardinia has a hot climate ; and in the marshy spots putrid fevers are common in summer.

7. *Soil.* The soil of Savoy is stony, and unfavorable to agriculture. The fertile earth lies in a thin strata on the rocks, and is often washed away by the torrents. In Piedmont, Montferrat, and the Milanese, are level and rich alluvial tracts. The soil in the island of Sardinia is extremely fertile ; but the canals which formerly drained it are neglected, and many parts have become pestilential swamps.

8. *Minerals.* Mining is almost entirely neglected ; though the mountains are rich in minerals. Copper is most abundant. Gold and silver are found in the mountains and valleys ; and gold is found in the sands of Tanaro.

9. *Face of the Country.* This country exhibits very diversified scenery. Savoy is an Alpine country, separated by an enormous mountain ridge from the Italian peninsula, and intersected by lofty mountains covered with snow and ice. Piedmont and Montferrat form the western extremity of the wide valley of the Po. The maritime districts are mountainous, and the island of Sardinia is intersected by several mountain ridges of small elevation.

10. *Roads.* One of the most remarkable objects in this country is the road over Mont Cenis in Savoy. It was begun by Bonaparte in 1803, and was completed at a cost of 7,460,000 francs. It is cut through the solid rock, and is furnished with 26 houses of refuge in the most elevated and exposed parts, so that the road is safe even in winter ; these houses are provided with bells, which during fogs are rung from time to time to direct the traveler from one refuge to another. Between France and Savoy is another road called *Les Echelles* ; nearly two miles of it consist of a gallery or tunnel through a solid rock of limestone. This road was begun and the greater part of it accomplished by Napoleon. But the Sardinian government had the honor of finishing it.

11. *Cities and Towns.* *Turin*, the capital of the kingdom, is situated in a pleasant valley, on the western bank of the Po, at the foot of a range of beautiful hills. It is the most regularly built of all the Italian cities, with broad, straight, and clean streets. It is admired for the symmetry of its squares, the splendor of its hotels, and the general elegance of its houses. It has 4 splendid gates, adorned with pillars and cased with marble ; 110 churches, a university and many fine palaces. The royal palace is spacious, and surrounded with delightful gardens. The outward view of the city is very imposing, and it has no mean suburbs or moldering walls. Population, 135,000.

Genoa stands on the shore of a broad gulf to which it gives its name. This city spreads over a wide semicircular tract of rocks and declivities, and the aspect of its white buildings ascending in regular progression from the sea, is highly magnificent. The interior consists of streets or rather lanes, 8 or 10 feet wide between immensely high palaces. When you look up, their cornices appear almost to touch across the street, leaving a strip of blue sky between. Two of the streets only are accessible to carriages. The *Strada Balbi* is one of the most magnificent streets in the world, and is full of splendid palaces. Genoa has a public library of 50,000 volumes, and a university. Its harbor is one of the finest in Europe, and it has a considerable trade. Genoa was once the capital of a powerful republic, the naval and commercial rival of Venice, and its beautiful situation its magnificent churches, and splendid palaces, amply entitle it to the surname of the Superb, given it by the Italians. Population, 120,000. Columbus was born in Genoa or an adjacent village.

Alessandria, on the Tanaro, is a place of some trade, with 45,000 inhabitants. In its neighbourhood are *Marengo*, the scene of one of the victories of Bonaparte, and *Asti* with 22,000 inhabitants, a commercial and manufacturing town.

Nice or **Nizza**, situated on the Mediterranean, has a good port and an active commerce, with 37,000 inhabitants. Its delightful situation and its mild climate render it a charming winter residence for many foreigners. *Coni* or *Cuneo* with 18,000 inhabitants, *Novara*, with 15,000, *Vercelli*, 15,000, and *Savona*, 12,000, flourishing manufacturing and trading towns, and *Chambery*, the capital of Savoy, with 18,000 inhabitants, are places of some interest.

Cagliari, the capital of the island of Sardinia, stands upon a large bay in the south. It is well built with some splendid palaces, a cathedral, 37 churches, a university, and a library of 18,000 volumes. It has little commerce, but the surrounding country produces cotton and indigo. Population, 27,000. **Sassari**, in the northern part, has a university and 20,000 inhabitants.

12. **Agriculture.** The arable land is held by large proprietors who divide their estates into small portions among farmers. The farmers seldom become proprietors, but in general the land descends from father to son. The proprietor receives half the product for rent and the use of the cattle, which are his property; for the meadows he is paid in money. Part of the tools also commonly belong to the proprietor. The farmers are in general very poor. The landed proprietors are rich. In the Apennines and a part of the Genoese territories,



Silk Worm.

the peasants are proprietors, but their only wealth consists in chestnuts, sheep, and olives. Wheat, maize, and other grain, rice, beans, and tobacco are cultivated. Excellent grapes are raised, but the making of wine is not well understood. The olive is cultivated along the coast, and Genoa is productive in oil. Piedmont raises annually 20,000 cwt. of silk.

13. **Commerce.** The only important articles of exportation are silk, rice, and oil. Genoa is the only port which has any foreign commerce. The island of Sardinia supplies the continental states with salt, and some grain and vegetables.

14. **Manufactures.** There are manufactures of silk at Genoa to the amount of 1,000,000 to 1,400,000 dollars annually. This city also manufactures paper, soap, chocolate, macaroni, &c. In Piedmont are some manufactures of silk. Nice produces perfumes and scented waters. There are some smelting furnaces in Piedmont and Savoy.

15. **Fisheries.** The tunny fisheries of the island of Sardinia are said to produce 200,000 dollars a year. The coral fishery is also a considerable source of revenue.

16. **Education and Religion.** There are four universities, those of Turin, Genoa, Cagliari, and Sassari. Besides these, there are eighty-five colleges and thirty-nine seminaries. The common schools are still in a backward state. With the exception of about 22,000 Waldenses, an ancient sect, not unlike the Moravian Brethren, and 3,000 Jews, the inhabitants are all Catholics, under the church authority of seven archbishops and thirty-four bishops. There

are at present three hundred and thirty-four monasteries and ninety-five nunneries in this kingdom.

17. *Government.* Since 1848, a limited monarchy with two chambers. The government is directed by a Supreme Council of State, a Council of Finances, a Council of Government, the Council of Savoy, the Senate of Turin, the Council of Nice, and the Council of Genoa.

18. *Revenue, Debt, &c.* The yearly revenue is about 16,000,000 dollars; the debt, 80,000,000 dollars. The army consists of 34,000,000 men; and the navy of two ships of 54 guns, and six or eight smaller vessels.

19. *History.* The Sardinian monarchy grew from the little district of Savoy. The duke of Savoy obtained many accessions of territory, in the early part of the 18th century. In 1720, he obtained the island of Sardinia, with the title of king.

CHAPTER XII. AUSTRIAN ITALY, OR THE LOMBARDO-VENETIAN KINGDOM.

1. *Boundaries, Extent, and Divisions.* The Austrian dominions in Italy occupy the eastern part of northern Italy. They consist of two divisions; the Republic of Venice, in the east, and Lombardy, in the west.* They are bounded N. by the Tyrol and Carinthia; E. by Istria, Carniola, and the Adriatic; S. by the States of the Church, Modena, and Parma; and W. by the Sardinian dominions. They extend from 45° to 47° north latitude; and from 9° to 14° east longitude. Their greatest length from east to west, is 220 miles, and their breadth 140 miles. They contain 17,600 square miles.

2. *Rivers.* The *Po* washes the southern limit of this territory. This river is denominated the prince of the Italian streams. It rises in the western Alps, on the confines of France and Italy, and passes easterly through the Sardinian States, receiving innumerable streams on either hand, from the Alps and Apennines. Continuing east, it divides Parma, Modena, and the ecclesiastical territory from the Austrian dominions, and falls into the Adriatic, after a course of 375 miles. It is everywhere deep, with a rapid current. Its branches are the *Doria*, *Lesia*, *Ticino*, *Adda*, *Oglio*, and *Minero*, from the north; and the *Tanaro*, *Trebbia*, and *Pararo*, from the south. It is navigable from Turin to the sea. The sand and gravel washed down from the mountains, have raised the bed of the river, in modern times, to such an elevation, that in some places banks 30 feet high are necessary to preserve the country from inundation. The *Adige* rises in the Alps of Tyrol, and flowing south, enters this territory, after which, it turns to the east, and falls into the Adriatic; it is 200 miles in length. The *Piave*, and several other small streams from the north, flow into the Adriatic.

3. *Lakes.* *Lago Maggiore* extends from Locarno, in the Swiss canton of Tesino, to Sesto, in the Milanese, 37 miles; it is 3 miles in width, and 1,800 feet deep. Its shores abound with Alpine beauties. In it lie the Borromean Isles, laid out in gardens and pleasure-grounds, and containing handsome villas. East of this is the *Lake of Como*, 32 miles in length; and, still further east, the *Lake of Garda*, celebrated by Virgil under the name of Benacus; it is 30 miles long, and 8 miles wide. There are several other smaller lakes in the neighborhood. All of them flow into the *Po*, and are highly beautiful.

4. *Climate and Face of the Country.* The country is for the most part level, but towards the north is broken by spurs of the Alps. To the west of Padua are the Euganean hills, from 1,500 to 1,800 feet high, of volcanic origin. The climate is mild and healthy; near the Alps it is cold, and even in the other parts, the rivers are sometimes frozen in winter, and the southern plants are injured by frosts. The heats of summer are tempered by refreshing breezes from the Alps.

5. *Soil.* Lombardy is a level country, and consists entirely of an alluvial plain, with one of the richest soils in the world. Near the mountains, gravel is mixed with the earth, but almost the whole tract is composed of a deep black mould.

* The present political divisions are:

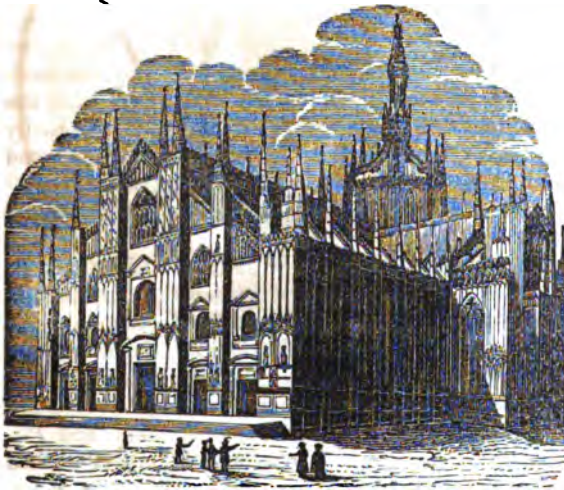
1. *The Government of Milan*, comprising nine Lombard Provinces; Milan, Pavia, Lodi, Como, Cremona, Sondrio & The Valteline, Bergamo, Brescia, and Mantua.

2. *The Government of Venice*, comprising eight Provinces; Venice, Verona, Padua, Vicenza, Rovigo, Treviso, Belluno, and Udine or Friuli.

6. Canals and Railroads. The Lombardo-Venetian provinces contain a great number of canals, partly designed for navigation, and partly for irrigation; there are not less than 243 in the government of Venice alone. The *Naviglio Grande* and the *Martesana Canal* have been mentioned in the general view of Italy. The *Cavanella Canal* joins the Bianco to the Po, and the *Loreo Canal* unites the Adige with the former. The *Brenta Canal* occupies the ancient bed of the Brenta, the course of which was changed by the Venetians some centuries since, to prevent its deposits from choking up their lagoons. An important project for a railroad through these provinces has lately been formed by the imperial government. This railroad will connect the 7 richest and most populous cities of Italy with each other, Venice, Padua, Vicenza, Verona, Mantua, Brescia, and Milan; the most gigantic portion will be the bridge over the lagoons, connecting Venice with the main land. The length of the railroad will be 190 miles, passing through a population of three and a half millions, the 7 cities having alone a population of half a million. [This road is now completed. 1845.]

7. Cities. *Milan*, the capital of the kingdom, and the residence of the viceroy, is a large and splendid city, 11 miles in circumference. It stands in the middle of a vast plain, on a spot

without any natural advantages, yet the fine canals from the Ticino and Adda, make it the centre of a considerable trade. It is considered the most elegant city in Italy, and was very much improved and beautified by Napoleon. The finest building is the cathedral, which, after St. Peter's, is the largest and most sumptuous church in Italy. It is built of pure white marble, and while the exterior dazzles the beholder by the brilliancy of its material, the richness of its Gothic ornaments, and its 4,000 statues, he is not less struck with admiration by the splendid interior, resting upon 52 marble columns. The college of Brera, now called the Royal Palace of the Sciences, with its fine library of 170,000 volumes; the viceregal palace; the vast and magnificent barracks; the theatre della Scala, one of the largest



Cathedral at Milan.

in the world; the triumphal arch at the termination of the Simplon road, and the great hospital, with the numerous elegant palaces and houses of private persons, constitute some of the ornaments of this city. The literary institutions of Milan are in high repute. Its manufactures are extensive and various, comprising silks, jewelry, &c. Population, 205,000. The hospitals and charitable institutions are numerous. Milan was founded 584 years before Christ, by the Insubrian Gauls. It has been 40 times besieged; 40 times taken, and 4 times destroyed. It has above 200 churches, and more than 100 monastic institutions.

Brescia, situated in a fertile and highly cultivated plain, has extensive manufactures of silk, cutlery, and firearms. Population, 31,000. *Bergamo*, a manufacturing place, with a flourishing trade in silk and iron, is remarkable for its great annual fair; the fair hall is a large building containing 600 shops. Population 24,000. *Cremona*, on the Po, is a large city, famous for its manufacture of violins. Its cathedral is a remarkable Gothic edifice of great dimensions, with one of the loftiest towers in Europe. Population, 26,000. To the north is *Lodi*, with 18,000 inhabitants, and manufactures of silk and porcelain. The Parmesan cheese is made in the neighborhood.

Mantua, on a lake near the Mincio, is a large and handsome city, but its population, 27,000 inhabitants, is disproportionate to its extent. Its situation and military works render it one of the strongest fortresses in Europe. In the neighborhood is shown the birthplace of Virgil. *Pavia*, on the Po, contains many elegant edifices, and a celebrated university. The Carthusian monastery, in its neighborhood, is one of the finest in Italy. Population, 21,000.

Venice is certainly the most singular city in the world. It is built upon piles in the midst of a large lagoon or lake, covered with a great number of little isles, which are separated from each

other by narrow canals.* These are crossed by 500 bridges, and as the streets are so extremely narrow as to render the use of carriages impossible, the usual vehicle of transportation is a sort of little bark called a gondola, which plies back and forth upon the canals. A great number of sumptuous palaces still remind the visiter of the glorious times of the now fallen city, once the commercial capital of the world, the mistress of the seas, and the cradle of modern civilization. Among the bridges is the famous Rialto, one of the most magnificent in Europe ; it is 187 feet



Rialto.



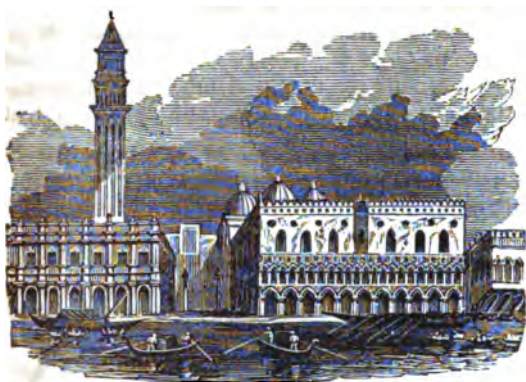
Venetian Galley.

long, and of a single arch. There are 41 public squares, but that of St. Mark, surrounded by splendid buildings, and commanding a fine view of the sea, is the most remarkable. There stand the church of St. Mark, an ancient building in the Oriental style, and the ducal palace, a vast and magnificent edifice, ornamented with the splendid masterpieces of the Venetian painters, and connected with the prisons called the leads (*piombi*, lead roofs), by the Bridge of Sighs. The arsenal, long famous as the largest in Europe, still contains everything necessary for equipping a fleet. There are several literary institutions and learned societies of reputation, and the library of St. Mark's is one of the richest in Italy. The commerce and manufactures of Venice, though much declined from their former importance, are yet considerable. The book trade is extensive, and glass, silk, woolen, and linen goods, artificial flowers, gold wire, &c., are manufactured here. Population, 120,000. The Square of St. Mark is 800 feet in length, and has a magnificent appearance. The traveler at evening may view this fine square in all its marble beauty, with the domes and minarets of its ancient church, the barbaric gloom of the Doge's palace, and its proud, towering campanile; he may here see the Corinthian horses, the workmanship of Lysippus, and the winged lion of the Piræus; he may walk in the illumination of a long line of coffee-houses, and observe the variety of cos-

* To the very nature of the country which they inhabited, the Venetians, like the Dutch, were mainly indebted for their independence. The Adriatic Gulf receives in its upper part all the waters which flow from the southern declivities of the Alps. Every one of them carries down in the rainy season enormous quantities of mud and sand, so that the head of the gulf, gradually filled up with their deposit, is neither sea nor land. The *Laguna*, as this immense tract of shoals and mud is called, comprising a

space of between 20 and 30 miles from the shore, is covered with about 2 feet of water, but is intersected by channels which afford a passage and safe anchorage to the largest vessels. Amid these shoals and mud-banks, are certain firmer and more elevated sites, which have been inhabited from remote antiquity. When Rome was invaded by Alaric, these islands were peopled by refugees from the continent, and this was the commencement of the powerful republic of Venice.

tume ; the thin veil, covering the pale Venetian beauty ; the Turks, with their beards and caftans, and long pipes, and chess playing ; the Greeks, with their skull-caps and richly laced jackets. Venice is in everything delightful, and may be called a great pleasure-house. It is the chief book-shop of the south, and prints for Italy in general, as well as for Greece and Germany. It has a public library of 150,000 volumes.



View in Venice.



Street in Verona.

Verona, on the Adige, is a large manufacturing city, with an extensive trade and 55,000 inhabitants. It is pleasantly situated, and, though many of the streets are narrow and dirty, contains several fine buildings. Here are 93 churches, 41 convents, and 18 hospitals. The scene of Shakspeare's *Romeo and Juliet* is laid in Verona, and a sarcophagus is still shown here as the tomb of Juliet. Verona also contains the remains of an ancient Roman amphitheatre, built of enormous blocks of marble, 1,290 feet in circumference, and capable of accommodating 22,000 spectators.

Padua is a flourishing city, with an extensive trade and manufactures. It is remarkable for the number and excellence of its learned establishments, among which is its celebrated university, formerly visited by students from all parts of Europe ; attached to it are an observatory, a botanic garden, and rich cabinets of natural history and physics. Population, 50,000. *Vicenza*, situated in a fertile plain, has extensive manufactures of silk. It is adorned with the works of the celebrated architect Palladio, who was born here. In its vicinity is the sanctuary of Our Lady of the Mount, the entrance to which is through an arcade a mile in length. Population of Vicenza, 30,000.

8. *Agriculture.* Agriculture is the chief dependence of the inhabitants, but the implements and operations of husbandry are imperfect. The artificial irrigation of lands is a striking feature of agriculture in Lombardy ; the canals for this purpose are very numerous, and water is thus employed for grass and corn lands and vineyards, and also to flood lands sown with rice. It is also used, when charged with mud, for depositing a layer of it as manure. The lands in Lombardy are generally farmed on the metayer or half-profit system. The landlord pays the taxes and keeps the buildings in repair, while the tenant provides the cattle, implements, and seeds, and cultivates the ground, and the produce is equally divided.

9. *Manufactures and Trade.* The chief manufactures are silk, glass, and hardware. At Venice and Murano, beautiful mirrors are made. Hardware and firearms are made at Brescia. Jewelry and plate are wrought at Milan and Venice. There are some manufactures of woollen, musical instruments, china, carpets, paper, artificial flowers, perfumes, vermicelli, macaroni, glass beads, &c. Venice has been made a free port, but its commerce is trifling. The internal trade is pretty active.

10. *Government. Religion. Education.* The government is arbitrary, and is administered by an Austrian viceroy. There is a show of representation, yet everything is controlled by the authorities at Vienna. All the taxes are imposed by the Emperor. The administration of justice is arbitrary and wretched in the extreme, and the censorship is very rigid. The religion is the Roman Catholic. Education in this kingdom is wholly under the control of the

government. Every town is required to have its elementary school, which is supported at the municipal expense. The higher schools are the gymnasia, in which are taught the learned languages and rhetoric, and the lyceums, in which are added history, and natural philosophy. The universities of Padua and Pavia are among the most distinguished in Italy.

11. *History* The ancient republic of Venice was founded in the 6th century, and from the marshy islands of the Adriatic, it gradually extended its limits so as to embrace a large portion of the neighboring continent. In the 13th century, this republic had become one of the most

flourishing and powerful States in the world. The discovery of the passage to India by the Portuguese, at the end of the 15th century, ruined the commerce of Venice with the East, and from that time, the republic began to decline. It had become totally insignificant on the breaking out of the French revolutionary wars, in the course of which, it fell into the hands of Austria. It was long the custom of the Venetians, in sign of their dominion over the Adriatic, to celebrate a splendid pageant, which they called wedding the sea. The State galley, or Bucentaur, sumptuously adorned, and filled with the principal men of the republic, and accompanied by innumerable feluccas and gondolas, moved down to the mouth of the harbor, where the doge dropped a ring into the bosom of the sea, with these words, "we wed thee with this ring, in token of our perpetual sovereignty." But even this poor relic of departed



Bucentaur.

glory has perished; "the spouseless Adriatic mourns her lord," and the Bucentaur lies rotting in the arsenal.

Lombardy was conquered by the Langobards or Lombards, in the 6th century, and made a kingdom. Charlemagne annexed it to his empire. The Milanese was for a long time an object of contention between the French and Austrians. The Lombardo-Venetian kingdom, with its present limits, became fixed under the Austrian rule, at the Congress of Vienna, in April, 1815.

CHAPTER XIII. THE DUCHIES OF PARMA, MODENA, AND LUCCA.

1. *Boundaries, Extent, and Divisions.* These three territories are distinct and independent of each other. They are bounded north by the Lombardo-Venetian kingdom; east by the States of the church; south by Tuscany, and west by the Mediterranean and the Sardinian territory.

2. *Parma.* This duchy comprises a surface of 2,200 square miles, and is washed on the northern limit by the Po. The Apennines bound it on the south. The climate is temperate and healthy. The soil is rich, and produces corn, fruits, the vine and olive. Silk is everywhere raised, and there are manufactories of this article and of iron. The government is absolute, and the duchy is divided into four districts. Maria Louisa, the widow of Napoleon, is the reigning duchess. By a certain contingency, the country may fall to Austria and Sardinia. The population is 490,000.

Parma, the capital, stands on a river of that name. Its walls are 3 or 4 miles in circumference. The streets and squares are spacious, but they contain little that is remarkable for architecture. Almost every other building is a church, rich within, but seldom finished without. Here are a university, a public library of 110,000 volumes, and the celebrated Bodoni press. Population, 40,000. *Piacenza*, on the Po, is a fortified town, occupied by Austrian troops. Population, 28,000. The citadel is occupied by an Austrian garrison.

3. *Modena.* This duchy lies also upon the Po, to the east of Parma. It contains 2,100 square miles. The climate is like that of Parma. The soil produces corn and wine. The government is arbitrary, and the revenue is about 70,000 dollars. A military force of 1,600 men

is maintained. The duchy is divided into three districts. It contains some iron mines, and stone and marble quarries. The population is 490,000.

Modena, the capital, stands in a pleasant plain, and has a neat, handsome appearance. Its general architecture is striking to a stranger, the greater part of the streets being built with open arcades. The ducal palace is a large and elegant structure, with a gallery of pictures and antiquities, and a library of 80,000 volumes. Here is also a university. Population, 26,800. *Reggio*, a handsome town, with 18,000 inhabitants, was the birthplace of Ariosto.

Massa stands on a small elevation a mile or two from the seashore. Its situation is perfectly delightful. At the entrance of the town, is the most beautiful bridge in the world, being a single arch of the finest proportions, built of the purest white marble. The ducal palace is a magnificent pile, fronted by a large inclosure bordered by orange trees. Population, 7,000.

Carrara, 5 miles distant, is an ill-built town, but growing rich from its commerce in fine statuary marble. Population, 6,000.

4. *Lucca*. This duchy lies upon the Mediterranean, and is bounded on the south by Tuscany. It contains 418 square miles, and a population of 143,000. It has a senate, which exercises the legislative power. The revenue is 288,000 dollars, and the military force, 1,400 men. It is the most populous and best cultivated part of Italy. It is divided into three districts. Since 1847 it has been annexed to Tuscany.

Lucca, the capital, stands in a plain, and is surrounded by walls. The towers of its churches, rising above the ramparts, have a fine effect in the rich and beautiful landscape; the view is bounded by vine-clad hills, and spotted with villas, over which tower the craggy Apennines. The ramparts are planted with rows of trees, between which is an elevated road round the whole city. The streets are narrow and crooked, and the public buildings without beauty. The churches are streaked and adorned with patches of different colored marble. Here is a university. Population, 22,000.

CHAPTER XIV.

PRINCIPALITY OF MONACO.

THIS State, situated on the Sardinian coast, is under the protection of the king of Sardinia. It has an area of 50 square miles, with 6,500 inhabitants. The prince usually resides in Paris.

Monaco, the capital, is a small town, built upon a rock, with 1,000 inhabitants. The largest town in the principality is *Mentone*, which has 3,000 inhabitants.

CHAPTER XV.

TUSCANY.

1. *Boundaries, Extent, and Divisions*. The Grand Duchy of Tuscany is bounded north and east by the Roman States, southwest by the Mediterranean, and northwest by Lucca. It contains 8,300 square miles, and is divided into 5 provinces, Florence, Pisa, Sienna, Arezzo, and Grossetto, containing 36 towns, 135 villages, and 2,570 parishes.

2. *Rivers*. The chief river is the *Arno*, which rises among the mountains in the eastern part, and flows westerly to the sea. In summer, it is a shallow stream, flowing in the middle of a broad channel; but when swelled by rains or the melting of the snows, it becomes a broad and deep river. It is navigable by barges from Florence to the sea. It supplies with water above 1,000 canals. The *Ombro* in the south, is not navigable. The *Tiber* rises in the mountains of this country.

3. *Islands*. The island of *Elba* is 9 miles from the coast of Tuscany. It is 60 miles in circumference, and contains 160 square miles. It is very mountainous, and instead of wood, the mountains are covered with aromatic plants and bushes. The climate is mild, and the seasons change regularly; autumn and winter are only distinguishable by the greater quantity of rain which falls. The chief production is iron, taken mostly from a single mountain, consisting of one immense mass of iron-ore. The island contains also copper, lead, and silver mines, and produces excellent wine. The chief town, *Porto Ferrajo*, has a good harbor, and contains 600 houses, all built of granite, with 3,000 inhabitants. In 1814, this island was given in entire sovereignty to Napoleon, who resided here from May, 1814, till February, 1815. Population, 13,700. The island of *Gorgona*, near Leghorn, is famous for the fishing of anchovies.

4 *Climate*. The climate is exceedingly diversified. On the mountains the snow lies for

weeks during the winter ; in the valleys it scarcely continues a day. Rain is not common, but the dews are copious. On the Apennines, and in the delightful valley of the Arno, the air is always healthy. In summer the southerly winds are very oppressive, and the region of the Maremma is unhealthy.

5. *Soil.* The vale of the Arno is rich and well cultivated. The soil on the Apennines is stony. The coast is low, sandy, and in some parts, swampy. In the southern part begins that desolate region called the *Maremma*, the soil of which consists of white clay impregnated with sulphur and alum, and emits constantly mephitic vapors. The Malaria or unhealthy exhalations of this region have obliged the population to emigrate, or swept them off by disease. In those parts which are cultivated, the peasants from the mountains come down to gather in the harvest, but they often fall victims to the insidious air. This region extends from near Leghorn to Terracina, about 200 miles, and from the sea to the foot of the Apennines, from 25 to 30 miles.

6. *Minerals.* Sulphur is produced here in great quantities, as also saltpetre, alum, and vitriol. The Tuscan marble is highly valued.

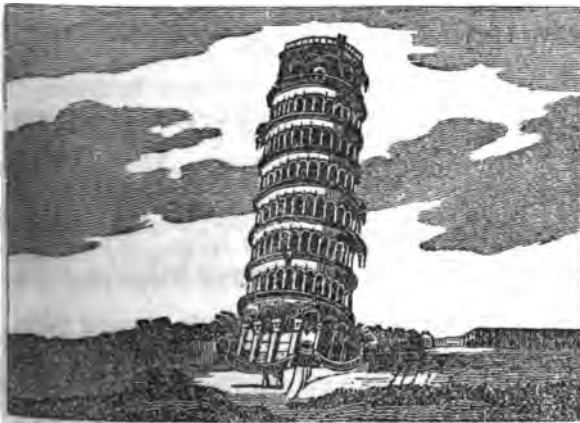
7. *Face of the Country.* Tuscany is admired for its romantic scenery. The boldness, grandeur, and rich luxuriance of the country are hardly anywhere equaled. The Valdarno or vale of the Arno is one of the most delightful regions in the world. One half of Tuscany consists of mountains, producing only timber ; one sixth is composed of hills covered with vineyards and olive gardens ; the remainder consists of plains.

8. *Cities.* *Florence*, the capital, stands on the Arno, 50 miles from the sea. It is 6 miles in compass, and, next to Rome, is the most beautiful city in Italy. It is built in a plain skirted by the Apennines. Antique towers and remains of fortifications, old convents, and other picturesque ruins crown the inferior eminences around the city, and recall the remark of Ariosto, that, on seeing the hills, so full of palaces, it appears as if the soil produced them. The city is surrounded by walls ; the buildings are magnificent, and the streets well paved and kept remarkably clean. The Via Larga or Broadway, is full of noble palaces. Most of the other streets are narrow. The Ducal palace, the cathedral, the church of Santa Croce, and many other edifices are noted for their size and splendor. The Medicean gallery is rich in those treasures of painting and sculpture, which draw to this city visitors from every quarter of the civilized globe. Here stands that Venus which enchants the world. The Magliabecchian library has 120,000 volumes ; others have 90,000 and 50,000. There are many splendid private galleries and libraries. Florence contains a great number of English residents. It was the cradle of the arts at the time of their regeneration, and the birthplace of Dante, Machiavelli, Filicaja, Guicciardini, Michael Angelo, Galileo, and Amerigo Vespucci. Population, 105,000.

Pisa, on the Arno, near the sea, was once the capital of a republic, the rival of Genoa and

Venice. It is now decayed, but can still boast some marble churches, a marble palace, and a marble bridge. Its ancient towers may be traced in the walls of modern houses. The streets are broad, and the Lung' Arno, which extends along both banks of the river, is much admired. The cathedral is a large Gothic edifice of marble. Near it stands that remarkable structure, the *Leaning Tower*. It is 190 feet high, and overhangs its base 15 feet, seeming to threaten a fall at every instant ; yet, it has stood 400 years, and endured the shock of earthquakes which have overthrown many a perpendicular structure.*

To a spectator, looking down from



Leaning Tower.

the top, the effect is terrific. Pisa has a university with a library of 60,000 volumes. In the

* Much dispute has arisen, whether the obliquity of this tower was designed or accidental. There is now little doubt that it was occasioned by accident ; and that the tower having been carried up about half way perpendicularly, the foundation sunk on one side, and the building was finished in its present condition. A belfry in the

neighborhood declines to the same side. The soil is soft, and water springs from it at the depth of six feet. Mr. Simond states, that the holes left for the scaffolding, are still visible in the wall, and are at right angles with it, which proves the building to have been upright at its commencement.

neighborhood are celebrated baths. Population, 20,000. *Leghorn* is the chief seaport of Tuscany. It is a neat, well-built, and busy town, with a tolerable harbor. The streets are filled with Europeans, Turks, Jews, Armenians, Greeks, and Moors, exhibiting a most picturesque variety of costume. Works of art and architectural monuments do not exist here. The commerce of the place is very active. Population, 88,000.

Sienna, a large and handsome city, was also once the capital of a flourishing republic ; but, like many other cities of Italy, it is now much reduced, having only 18,000 inhabitants. Its university and academy of science have much celebrity. *Pistoia* has a celebrated manufactory of organs, and manufactures of wool, gold, silver, and firearms. Population, 12,000.

9. *Agriculture.* Corn, wine, and oil are common productions. The valley of the Arno is divided into very small farms, separated by rows of trees or small canals. The Maremma pastures great numbers of sheep and horses. Chestnuts are an important production ; in some parts they are used for bread.

10. *Commerce, Trade, and Manufactures.* Tuscany is one of the most industrious countries of Italy. Silk manufactures are the principal branch of industry in the Florentine cities. Straw hats are made in great numbers by women, in the valley of the Arno. The other manufactures are linen, broadcloth, soap, perfumes, letter paper, china, marble, coral, alabaster, and mosaics. Leghorn has a considerable commerce with the Levant, Europe, and America.

11. *Government, Population, &c.* The government is an absolute monarchy. The revenue is above 5,000,000 dollars. There are 6,500 regular troops, besides militia. Tuscany has no navy, and her vessels are protected by the Austrian flag. The population is 1,570,000. Of these 35,000 are Jews.

12. *Religion and Education.* The religion of the people is Roman Catholic ; the number of priests is about 8,000, and education is exclusively in their hands. There are universities at Pisa, Florence, and Sienna. There are also many secondary institutions or colleges, and females are instructed in the convents. Schools for elementary instruction have also been established in all the towns, but though Tuscany is the best educated country in Italy, not one half of the population can read or write.

13. *History.* Tuscany was anciently called *Etruria*. Florence, Pisa, and Sienna were important republics during the middle ages. The Medici of Florence amassed great wealth by commerce, and finally obtained the sovereign authority of the city. This family became extinct in 1737, when the Grand Duchy passed to the Duke of Lorraine. This territory was in 1792 made a republic under the name of the Commonwealth of Etruria. Afterwards it became the kingdom of Etruria, and then a part of the French empire. In 1814 the Grand Duchy was reestablished.

CHAPTER XVI. STATES OF THE CHURCH, OR THE PAPAL DOMINIONS.

1. *Boundaries, Divisions, &c.* This territory occupies the centre of Italy. It is washed on the northeast by the Adriatic and on the southwest by the Mediterranean. On the north it is bounded by the Lombardo-Venetian kingdom, on the southeast by the kingdom of Naples, and on the west by Modena and Tuscany. Its extreme length is 260 miles from north to south, and its breadth from 20 to 95 miles. It contains 17,500 square miles. The Duchy of Benevento, and the principality of Ponte Corvo are two small districts belonging to this territory, insulated in the kingdom of Naples.

2. *Rivers.* The *Tiber*, though not the largest stream in Italy, is the first in classical celebrity. It rises in the Apennines, near the source of the Arno, and passes through the city of Rome to the Mediterranean ; it is 200 miles in length, and has a full stream but narrow ; it is only 300 feet wide at Rome. There is no other river of importance within this territory. The northern boundary is washed by the Po.

3. *Lakes.* The lake of *Perugia* near the city of that name, is the ancient Thrasymenus, and is famous for a battle between Hannibal and the Romans. It is a beautiful sheet of water, 4 miles across, bordered with gently sloping hills, everywhere covered with woods or cultivated fields, and rising at a distance into mountains. The lakes of *Albano* and *Nemi* are charmingly situated among hills. There are other small lakes.

4. *Climate.* The climate is mild, but the mountains are covered with snow from October

10 April. The *Sirocco*, or hot wind from Africa, is felt on the shore of the Mediterranean. In the mountainous parts the air is healthy, but in the Maremma on the coast, and in the neighborhood of the Pontine marshes, are pestilential exhalations, which cause fever and ague. The northern parts near the Po are also unhealthy.

5. *Soil.* The soil does not differ materially from that of Tuscany. The oranges and lemons produced in the plain of Rome are the best in Italy.

6. *Face of the Country.* This territory is intersected by the Apennines. The mountains are as barren as those of Tuscany and Genoa, but higher. The Campagna di Roma is a continuation of the Tuscan Maremma, and is noted for its unhealthy malaria. It exhibits an undulated surface bare of trees. The Pontine marshes are in the south. The ancient Cesars and modern Popes have in vain attempted to drain them.

7. *Natural Curiosities.* The cataract of Velino near Terni, is a beautifully picturesque cascade, and has been celebrated in the verses of Byron. It is, however, partly artificial. The mountain stream of the Velino was turned into the Nar through a bed cut in a limestone rock.* The cascade of Tivoli is also artificial.

8. *Divisions.* The States of the Church are divided into 21 provinces, bearing the names of their chief towns. The province of Rome is styled *comarca* or country; those of Bologna, Ferrara, Ravenna, Urbino, Pesaro, Forlì, and Velletri, Legations; Loretto is called a *Commissariat*, and the other thirteen delegations.

9. *Towns.* Rome, the capital of the State, stands upon both sides of the Tiber, 15 miles



View of Modern Rome.

from the sea. It is situated on several low hills, and is 16 miles in circumference, comprehending, however, within this space much open ground, gardens, vineyards, and fields. Once the capital of an empire, which embraced nearly the whole of the known world, and for centuries, the residence of the popes, who have adorned it with all the splendors of painting, sculpture, and architecture, there is no place that can compare with Rome in its majestic ruins, its associations with the past, the solemn grandeur of its churches and palaces, and its endless treasures of art. It has, indeed, a sombre appearance, rendered still more striking by large squares, spacious and deserted streets, and the majestic ruins

which are seen at every step. Some of the streets are of immense length; others are only half built; many are narrow and crooked. In one part are noble palaces half hidden among miserable huts. In another part all is gorgeous and magnificent. Other places may be more beautiful, but Rome is one of the most richly picturesque cities in the world. The hills, insignificant in themselves, seem made to display the buildings to the greatest advantage. The architecture, both ancient and modern, is often faulty and incongruous, but always combines well with the landscape. The spectator is dazzled with the multiplicity of objects, and decaying ruins are relieved by modern magnificence. It contains at present a population of 184,000 souls, 364 churches, 30 monasteries, 46 public squares, and 125 palaces. The modern city is a little north of ancient Rome, the site of which is principally covered with gardens and vineyards. Fifteen gates, several of which are distinguished for their magnificence, form

* "The channel in which the water runs above the falls is 51 feet in width. The descent is 1 foot in 20, and the rapidity of the current about 7 miles an hour. The traveler is conducted to different points to look down on this tremendous cascade. The best view is from a little summer-house on a projecting point considerably below the brow, said to have been built for the accommodation of Napoleon. The lower part of the cataract is not visible at this point, but the river is seen rushing among rocks and precipitating itself in a succession of falls over a perpendicular precipice, tossing itself in thunder amid the foam and spray of the gulf below. The first fall takes place where the stream is yet confined among the rocks of the channel, which is there much broken, and may have an elevation of 40 or 50 feet. The second fall is a

perpendicular descent of between 500 and 600 feet. It afterwards strikes against a rock, and rushes down repeated falls, so close as to form almost one continued sheet of foam for 240 feet more, into the Nar; so that the whole descent is upwards of 800 feet. * * * * Altogether the tremendous height of the fall, the vast column of water, the color and shape of the 'rocks of jet,' or velvet black in contrast with the pure sparkling white of the spray, the vivid green of the grass and mosses which it perpetually moistens, the grotesque configuration of the calcareous incrustation which it forms, and the brilliant rainbow which, 'beneath the glittering morn,' or in the evening sunshine, arches the stream, combine with the richness and beauty of the surrounding scenery to form a picture of perhaps unequalled beauty. — *Conder's Italy*

the entrances into the city. Several of the principal streets are spacious and of great length; among these is the Corso, in which the races are held, and which forms the favorite promenade of the Romans.

The church of St. Peter, built at the expense of the whole Roman world, is the glory of



Church of St. Peter.

modern architecture. The symmetry and beauty of its proportions cause such sensations of delight, that the traveler, on leaving Rome, finds his most painful regret to be that he shall see St. Peter's no more. It is fronted by a circular colonnade surrounding an Egyptian obelisk and 2 magnificent fountains. The immense dome, the boldest work of modern architecture, rises to the height of 520 feet; under this is the high altar, with a colossal canopy, supported by 4 bronze pillars, 120 feet in height. The church was 111 years in building, and cost a sum equal to 160,000,000 dollars at the present day. No other church in Rome can be compared to this, yet there are many remarkable

for magnificence and antiquity. The Pantheon is the most perfect edifice of ancient Rome; it is now converted into a church; its portico is unrivaled. The St. John's of Lateran, in which the Popes are crowned, and Great St. Mary's, are also magnificent edifices.

The winter residence of the popes is the Vatican, the largest palace in Europe, containing 4,420 halls and galleries, filled with the treasures of ancient and modern art. The library is one of the largest and richest in the world. The Quirinal palace is the summer residence, and its gardens are the most beautiful in Italy. The palaces of the rich Romans, and the villas, or palaces surrounded with gardens, groves, and parks, resemble rather the residences of princes, than of private individuals; and many of them are adorned with a profusion of the finest works of statuary and painting; the edifices themselves are the productions of the greatest geniuses of modern times.

The number of literary institutions and societies in Rome is very great, and there are academies for all branches of the fine arts. The University della Sapienza, the Roman College, the Propaganda, for the education of missionaries, and 21 colleges, are the chief establishments for education.

There are many remarkable monuments of ancient Rome, which should not be forgotten in an account of the modern city.



Coliseum.

The Ælian bridge over the Tiber, now called the bridge of St. Angelo, is one of the finest in Italy. The mausoleum of Adrian, a rounded pyramid of white marble, called also from its great size Adrian's Mole, now bears the name of the Castle of St. Angelo; it has been converted into a citadel, and in it are kept the treasures of the popes, and the bulls and documents of the papal court; the prisoners of state are also confined here. The Coliseum, a vast amphitheatre, 1,600 feet in circumference, and capable of containing 100,000 spectators, is much decayed.* Several temples, the columns of Antonine and Trajan, the triumphal arches of Titus and Constantine, and numerous obelisks are in good preser

* There is authority to say, impossible as it may seem, that when Titus for the first time opened the door of this prodigious edifice, begun by Vespasian his father, and finished by himself, the number of beasts of all sorts, from

the fox to the lion and the tiger, from the elephant to the gazelle, which perished in the games of a single day, slaughtering and slaughtered, amounted to 5,000. — *Simon.*

vation. The Cloaca Maxima or Great Sewer is of colossal dimensions, and is one of the oldest Roman constructions ; it is composed of enormous stones, and its vaults are from 10 to 16 feet high, and from 12 to 14 wide.

Bologna, a large and handsome city, delightfully situated at the foot of the Apennines, is the second town of the State. The houses are mostly built of stone with arcades in front, so that foot-passengers can pass through the city under cover. There are many churches and palaces here remarkable for their architecture and their treasures of statuary and painting. Bologna has long been famous for its learned institutions, and the university is the oldest in Europe, and one of the best in Italy. The Scientific Institute is a magnificent institution, with a rich library of 160,000 volumes, an observatory, and valuable cabinets of art and science. Population, 71,000.

Ferrara, to the north of Bologna, is a large and superb city, but is rendered unhealthy by the marshes which surround it ; it is now half deserted, and the grass grows in front of its noble palaces. Its polished court was once the resort of the most famous wits of Italy, and there are a university and a valuable library here. Ferrara contains a strong citadel, now occupied by Austrian troops. Population 24,000.

Ravenna, formerly a populous city, and successively the residence of the emperors of the Western Roman Empire, of the Gothic kings, and of the exarchs of Italy, is now much reduced. The neighboring marshes render it unhealthy, and its fine port, in which the Roman fleets wintered, is now filled up with mud. It still contains many remains of its ancient magnificence, and here repose the bones of the divine Dante. Population, 16,000.

Rimini, is a large and handsome city, containing numerous remains of antiquity and several fine churches. Its harbor is now choked up, and the sea has receded more than two miles from the ancient lighthouse. Population, 15,000. *Ancona*, is a place of considerable commerce, with a good harbor upon the gulf of Venice. Its manufactures are also extensive ; population 30,000. *Sinigaglia*, to the north of Ancona, with 8,000 inhabitants, is famous for its fair. *Loretto*, to the south, is celebrated for its cathedral, in which is shown the house of the Virgin Mary, said to have been brought hither by angels.

Perugia, situated upon the Tiber, in the midst of a fertile and highly cultivated district, contains a university, and has a population of 30,000 inhabitants. Its silk manufactures are important, and its library, museum of antiquities, ruins, &c., render it interesting. *Civita Vecchia*, on the Western coast, with 7,000 inhabitants, is a strongly fortified port, with a dockyard, and considerable commerce. *Benevento*, within the Neapolitan territories, with 14,000 inhabitants ; *Spoleto*, 7,000 inhabitants ; and *Urbino*, 7,000, are interesting from the important part they have played in the history of modern Italy.

10. *Agriculture*. The lands are commonly held by great proprietors. In the plain of the Po, cultivation is active, but the rest of the country is neglected. The Romans are less industrious than their northern neighbors. The vine and olive grow everywhere. Onions are raised in immense quantities in the marshes of Ancona. Hemp, saffron, and beans are extensively cultivated.

11. *Commerce and Manufactures*. The commerce is chiefly in the hands of foreigners, and the only seaport of consequence is Civita Vecchia. The manufactures merely supply the home consumption. Some silk is manufactured at Bologna, besides many miscellaneous articles. Gallnuts and cantharides are articles of exportation.

12. *Government*. The government is an elective monarchy. The pope possesses both the legislative and executive power, and is chosen by the College of Cardinals from among themselves. The number of cardinals is about 70. Constitutionally, the pope is an absolute sovereign, but in practice he is only the head of an oligarchy. Since the time of Adrian the Sixth, who was obtruded upon the throne by Charles the Fifth, all the popes have been Italians.

13. *Revenue, Army, &c.* The revenue is 10,000,000 dollars. The debt is 34,000,000. The military force is about 9,000 men. There is no navy. The population is 2,590,940.

14. *History*. The cradle of the ancient Roman republic is now become the seat of the spiritual head of the religion of peace. The Roman power, by an almost uninterrupted series of wars for centuries, during which 300 triumphs celebrated the victories of their arms by sea and land, was gradually spread all over the countries bordering on the Mediterranean, in Asia, Africa, and Europe. After the decline of this colossus, the name of Rome was still venerated by the world, and the bishop of Rome, better known by the title of pope, came to

*Ancient Roman Wars.*

maintained armies, and exerted great influence in the affairs of Europe. Their power received a blow by the Reformation in the 16th century, and the papal authority is now quite insignificant. One of the consequences of the invasion of Italy by Bonaparte in 1796, was the overthrow of the Pope, and the establishment of a republic in Rome; but this government was of short continuance. The Roman States were annexed to Napoleon's Kingdom of Italy in 1808, and in 1810 they were united to the French Empire. In 1814 the pope was restored to all his former possessions.

be looked upon as a sort of head of the Christian church. The pope claims the lofty title of successor of St. Peter, and God's vicegerent upon earth. The supremacy of the apostolic see at Rome, dates from a remote period. The pope first acquired claim to territorial dominion from the donation of Charlemagne about A. D. 800; but not till the 15th century, was the papal authority established over what now constitutes the patrimony of St. Peter; Ancona and Urbino were obtained in the 16th and 17th. Though the papal territories were inconsiderable, yet the popes

CHAPTER XVII.

REPUBLIC OF SAN MARINO.

THIS little republic is an independent State, but is under the protection of the pope, and is inclosed in the Papal States. It consists of a mountainous tract among the Apennines, containing 22 square miles, and a population of 8,200. It is productive in wine and corn. The town of San Marino stands on the summit of a mountain, and is accessible only by a narrow path. The constitution is a mixture of aristocracy and democracy. The punishment of death has never been inflicted within this territory.

CHAPTER XVIII.

THE KINGDOM OF NAPLES, OR KINGDOM OF THE TWO SICILIES.

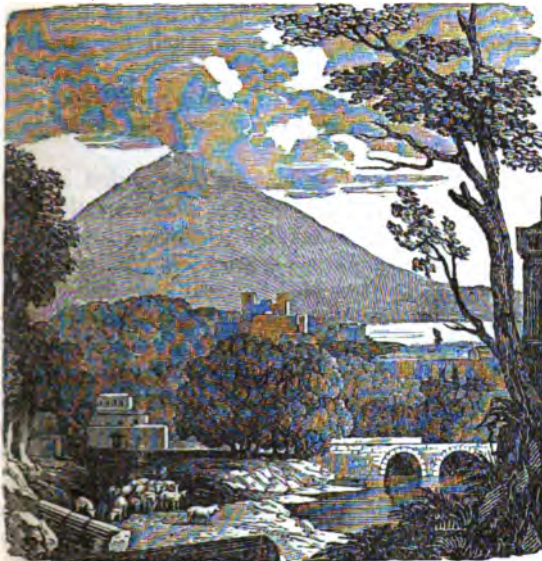
1. *Boundaries, Extent, &c.* This kingdom comprises all the south of Italy, with the Island of Sicily, and a few small islands in the neighborhood. The continental portion is bounded northwest by the States of the Church; northeast by the Adriatic; southeast by the Ionian sea, and southwest by the Mediterranean. It extends from $37^{\circ} 50'$ to $42^{\circ} 55'$ N. latitude; and from 13° to 19° E. longitude. Its extreme length is about 360 miles. Its width varies from 20 to 8 miles. The Island of Sicily is separated by a narrow strait from the southern extremity of the continent; it extends from $36^{\circ} 40'$ to $38^{\circ} 15'$ N. latitude; and from $12^{\circ} 30'$ to $15^{\circ} 40'$ E. longitude; its extreme length being 250 miles. The continental part contains 32,000 square miles, and the island 10,200. Total 42,200.

2. *Mountains.* The continental part is traversed from north to South by the *Apennines*, which terminate at the Straits of Messina, separating Sicily from the continent. The highest summit, *Mount Corno*, or *Cavallo*, reaches the height of 9,520 feet. *Vesuvius*, a volcanic mountain near the city of Naples, 3,450 feet high, belongs to this chain. The first recorded eruption of Vesuvius was in A. D. 63, a few years after which it overwhelmed the 2 large and populous cities of Pompeii and Herculaneum with lava and ashes. Since that period, it has been in constant activity, and has frequently caused great ravages. Its



Vesuvius.

was called, in consequence, *Trinacria* by the ancient Greeks. It seems to have been separated from the continent by some violent convulsion. The Strait of Messina, dividing it from the continent, is 5 miles broad. This is the ancient Charybdis, although the whirlpool which rendered it such a terror to mariners, no longer exists. The mountains of this island may be regarded as a continuation of the Apennines. Mount *Ætna* is near the eastern shore.



Mount Ætna.

an exact conical figure, composed of ashes and scoræ. From this opening, smoke is continually ascending.* There are several mud volcanoes in the island. The principal one is at

sides are mostly barren, but in some parts vines and fruits are seen amidst fields of burning lava, and its base is inhabited and cultivated. Sicily contains two ridges extending across the island; the one from east to west, in which is the volcanic *Mount Etna*, or *Mongibello*, 10,870 feet high, and the other from north to south.

3. *Rivers and Lakes.* The rivers descend from each side of the Apennines into the sea. They are all small; the *Volturmo* and the *Garigliano*, flowing west into the Mediterranean, are the principal. The principal lake is *Celano*, in the northern part of the kingdom.

4. *Islands.* *Sicily* is the largest island in the Mediterranean. It is shaped like a triangle, and

This celebrated volcano has thrown out flames, at intervals, for more than 2,000 years. Its immense size and solitary elevation, the beauty and magnificence of the surrounding scenery, and the terrific grandeur of the convulsions to which it has been subject, have made it one of the wonders of the world. At a distance, it appears like a truncated cone. Upon a nearer approach, the traveler is astonished at the wild and grotesque appearance of the whole mountain. Scattered over the immense declivity, he beholds innumerable small conical hills gently rising from the surface to the height of 400 or 500 feet, covered with rich verdure and beautiful trees, villages, scattered hamlets, and monasteries. As his eye ascends, he discovers an immense forest of oaks and pines, forming a beautiful green belt round the mountain. Above this, appears the hoary head of the volcano, boldly rising into the clouds, and capped with eternal snow. The crater is a hill of

* "The ascent from Catania to the summit is thirty miles, requiring a journey of thirty days. Fifteen miles are allowed for the cultivated region, which is remarkable for the great number of conical hills, generally two or three miles in circumference. All of them have craters, and one of them threw out an immense torrent of lava, in 1669. The second part of the ascent, called the woody region, extends eight or ten miles toward the summit of the mountain. The most remarkable object here is the *castagno dei centi cavalli*, or chestnut-tree of a hundred horses, which is 304 feet in circumference at the root. It is divided into five branches, but they all unite in one root. Near this, are to be found two others, seventy-six feet in girth, and an oak of forty feet. As the traveler ascends, the trees diminish in size and beauty, and presently vegetation looks withered and stunted. After this, he passes

into the desert region, or upper zone of *Ætna*; this is over-spread with snow and ice, and intersected by torrents of melted snow. In the midst of this desert, the lofty summit of the mountain is descried, rearing its tremendous head above the surrounding snows, and vomiting torrents of smoke. The most difficult and dangerous part of the ascent now begins. Violent gusts of wind chill the traveler, and as he proceeds, the snow gradually increases in depth and hardness, till it appears one continual sheet of ice. Sometimes, from the partial heating of the surface, pools of water are formed by the melted snow, which arrest his progress; the sand and ashes, at first thinly spread over the surface of the hardened snow, deepen as he advances, and are at the same time so loose, that he is in danger of being swallowed up at every step. Sulphureous exhalations, constantly arising from the crevices of

Maccaluba, near Girgenti. The rivers of Sicily are mere rivulets. The heavy winter rains set the mountain torrents running, but when dry, their beds become tolerable roads, to the distance of 3 or 4 miles inland.

The *Lipari Islands* lie between Sicily and the continent. They are 12 in number; a part of them only are inhabited. *Lipari*, the principal isle, contains 112 square miles; it is mountainous, and the soil is rendered fertile by a subterranean fire. There was once a volcano here. The island of *Stromboli* is a volcano, that burns without ceasing. *Volcano* constantly emits smoke. The island of *Capri* in the Bay of Naples, contains 10 square miles. It consists of two high rocky mountains, enclosing a fertile valley. In the time of the Romans, it was adorned with magnificent palaces. *Ischia* and *Procida* are fertile islands, in the same neighborhood.

5. *Bays and Gulfs*. The *Gulf of Taranto* is a semicircular bay at the southeastern extremity of Italy; it is 100 miles in extent. The bays of *Naples* and *Salerno*, on the western coast, are much smaller.

6. *Climate*. On the continent, a perpetual spring seems to prevail. Vegetation is never interrupted; in the depth of winter, the fields are green, the orange trees in blossom, the balmy air is filled with the fragrance of blooming shrubs and flowers, and the sea reflects a clear, blue sky. From May to September the heat is intense. On the highest mountains the snow sometimes lies from October till May. In Sicily, the heat of summer is diminished by sea-breezes, but when the Sirocco blows, all vegetation dies away. Rain seldom falls, but the dews are copious. The nights are cold, but it never freezes except upon the mountains.

7. *Soil*. There is an indescribable richness of vegetation throughout this country. Here flourish the fig-tree, the almond, the cotton plant, and sugar-cane. Sicily is one of the most productive spots on the earth. The soil is calcareous, and its fertility is much increased by volcanic fire.

8. *Minerals*. This country does not appear to be rich in minerals, and among those that have been discovered, few are wrought. There are some iron mines near Naples, and sulphur, alum, marble, alabaster, puzzolana, and salt are produced here.

9. *Divisions*. The kingdom is divided into 22 provinces, which are subdivided into 75 districts. Of the former, 15 are in the continental part, and compose the Domains this side the Faro (*Dominj al di qua del Faro*); and 7 in Sicily, constituting the Domains beyond the Faro. The Sicilian provinces are Palermo, Messina, Catania, Syracuse, Caltanissetta, and Trapani, called from their chief towns. Those of Naples are the First and Second Farther Abruzzo, Hither Abruzzo, Terra di Lavoro, Molise, Naples, the Farther and Hither Principato, Capitanata, Bari, Otranto, Basilicata, the First and Second Farther Calabria, and Hither Calabria.

10. *Cities*. *Naples*, the capital, is the largest city in Italy. It stands at the bottom of a bay, and with its suburbs and contiguous villages extends 6 or 8 miles along the water. On the land side it is surrounded by mountains. Nothing can surpass the beauty of the bay or the prospect of the city viewed from the water, where it appears broken into great masses, and crossed by long lines of palaces, hanging gardens, and terraced roofs; the outline upon the sea is strikingly indented, the shipping is clustered behind the moles, and castles and towers rise on the points of projection. The shores of the bay are covered with interesting ruins, and broken into graceful inlets. The dark towering summit of Vesuvius rises, frowning over the landscape, while its lower regions are covered with the richest vegetation, and dotted with white country houses. The whole circuit of the bay is edged with white towns, and covered with cultiva-

the mountain, irritate his lungs, and threaten suffocation. Clouds of smoke, issuing from the crater, roll down its side, and involve him in a pitchy atmosphere; and to add to the horror of the scene, terrific sounds are continually issuing from the very centre of the mountain, resounding like discharges of artillery in the vast abyss. This part of the journey is generally performed in the night, in order to arrive at the summit at an early hour. The traveler, an hour before sunrise, reaches a ruined structure called the Philosopher's Tower. Here, sheltered from the fury of the blast, he may sit down to recruit his exhausted strength, and examine the objects around him. The forests below still appear like a dark gulf encompassing the mountain; the unclouded sky is faintly irradiated, and the immense vault of heaven is stretched above in awful majesty. The stars seem increased in number and magni-

tude, and their light appears uncommonly bright, while the milky way shoots across the heavens like a pure flame. On ascending the summit of the crater, all that is wonderful, sublime, and beautiful in nature bursts upon the astonished eye." — *Bel*.

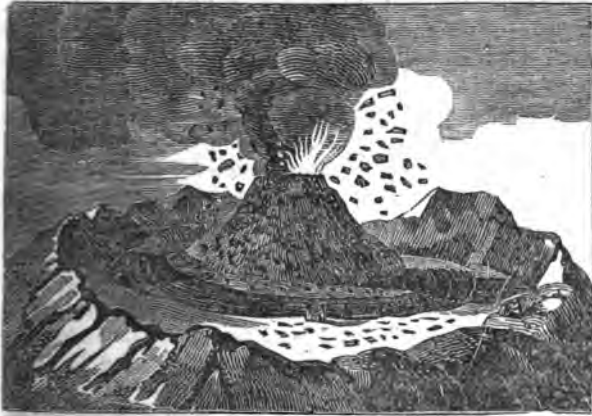
The diameter of the visible horizon from this spot, is 260 miles. The island of Malta appears on the edge of the horizon; but it is not true, as stated by Brydone, that the African coast may be discovered. The greatest eruption of *Ætna*, in late years, took place in 1812. Another, in 1819, formed a current of lava 60 feet in breadth on the mountain, and 1,200 at its base. It desolated the country to the distance of six miles, and set fire to the trees which it touched. Stones were thrown out of the crater to the height of 1,000 feet.

tion and the abundance of nature. The magnificence of the whole scene is beyond the most gorgeous description.

The streets of the city are strait but narrow ; some are refreshed with fountains ; others are decorated with statues and sculptured obelisks. The houses are high, the roofs flat, more than half the front consists of windows, and every window is faced with an iron balcony. Naples in its interior has no parallel on earth. The whole population is out of doors and in incessant motion ; no street in London or Paris has anything comparable to it ; it is one everlasting tumult. The Strada di Toledo is a perpetual fair, and on Sundays the crowd is so immense that it is difficult to walk through it. This street is very splendid, and the shops gay and showy. Every trade, occupation, and amusement is here going on in the midst of a tumultuous crowd rolling up and down. In this region of caricature, every bargain sounds like a battle ; the popular exhibitions are full of the grotesque, and some of the church processions would frighten a war-horse. The Mole is on holidays an epitome of the city, and exhibits most of its humors. The number of *lazzaroni*, or vagabonds, is immense. They are idle from choice ; their tatters are not misery, for the climate requires hardly any covering, and 2 cents value of macaroni is sufficient food for a day.

Six strong castles defend the city, and an excellent mole shelters the port. The commerce is not very active. There are above 300 churches in Naples, remarkable for their ornaments and rich jewelry. The nobility are numerous and are much addicted to show and parade ; 100 of them have the title of princes. Population, 400,000.*

The environs of Naples combine almost everything grand and beautiful. Many of the towns scattered along the bay have 10 and 15,000 inhabitants. Mount Vesuvius, which forms so



Mount Vesuvius.

striking a feature in the landscape, rises in a pyramidal form, on the east, in the midst of a large plain. The traveler, in ascending it, passes among cultivated fields and vineyards, traversed by old streams of lava, black, rough, and sterile.† The ascent is gradual and extends 3 miles. On one side the mountain is cultivated nearly to the top. The conical summit is composed of ashes and cinders. The crater is about a mile in circuit, and is 3,800 feet above the sea. The view from the summit is enchanting. The soil of the mountain is extremely fertile, and cultivated with the spade like a garden. The crater

throws out continual smoke, and often bursts forth in terrible eruptions. In this direction are Portici, Herculaneum, and Pompeii.

On the west is Mount *Pausilippo*, through which is cut the tunnel or arched way, called the grotto of Pausilippo, 90 feet high, 30 feet wide, and upwards of a mile long. Passing through this tunnel you come to the lake of *Agnano*, which emits sulphureous vapors, and has the singular property of boiling up in some places, without being hot. On its banks is the Grotta del Cane or Dog's Grotto, the bottom of which is covered with carbonic acid gas. On plunging

* "To a mere student of nature, to an artist, to a man of pleasure, to any man that can be happy among people who seldom affect virtue, perhaps there is no residence in Europe so tempting as Naples and its environs. What variety of attractions ! a climate where heaven's breath smells wooingly ; the most beautiful interchange of sea and land ; wines, fruits, provisions, in their highest excellence ; a vigorous and luxuriant nature, unparalleled in its productions and processes ; all the wonders of volcanic power spent or in action ; antiquities different from all other antiquities on earth ; a coast which was once the fairy land of poets, and the favorite retreat of great men. Even the tyrants of the creation loved this alluring region, spared it, adorned it, lived in it, died in it." — *Forster*.

† "The short eruption of December last, opened the new crater on the brink of which we stood ; the old one it filled up, and 4 streams of lava descended in various directions, but did not reach any of the towns or villages or even the cultivated fields ; so that the inhabitants, after placing sentinels to watch the progress of the glowing fluid, and packing up their effects to be ready to decamp, quietly went to bed as usual, while the river of fire slowly rolling on, advanced towards them, for lava does not, strictly speaking, flow, but the upper part continually tumbles over the lower, which, adhering to the ground, is retarded. Those houses which are most exposed find purchasers, although at a somewhat reduced price." — *Simond's Travels*, 1818.

a dog into this gas he is suffocated and appears lifeless ; but revives on being withdrawn. Beyond is the Solfatara, a volcanic cone, from which issue sulphureous vapors. Then succeeds *Pozzuoli*, a town of 8,000 inhabitants, remarkable for its ruins and its charming situation. In its vicinity are the river *Acheron*, the lake *Avernus*, and the *Monte Nuovo*, which suddenly rose out of the ground in 1588, to the height of 500 feet. Here is also *Baia*, once a favorite resort of the Romans, now covered with magnificent ruins. On the east the road leads to Portici, Vesuvius, Herculaneum, and Pompeii. At the foot of Vesuvius is *Torre del Greco*, a considerable town, with 13,000 inhabitants.

Near the coast, to the south, are *Cava*, with extensive manufactures, a celebrated monastery, and 20,000 inhabitants ; *Salerno*, a commercial city, renowned for its ancient medical school, with 11,000 inhabitants ; and *Amalfi*, now a little village with 3,000 inhabitants, but interesting from its historical importance. Further south stand the magnificent ruins of *Pestum*, an ancient Greek city, celebrated by the poets for the fragrance of its twice-blowing roses, and its mild and balmy air. The remains of 3 temples of a colossal size and beautiful architecture were discovered here in 1755, and in 1830 a whole street, lined with a long colonnade, was found.

Bari, on the Adriatic, has a good harbor and considerable commerce, with 19,000 inhabitants. *Lecce*, 14,000 inhabitants, *Tarentum*, 14,000, and *Reggio*, with 17,000, are important manufacturing and commercial towns. *Foggia*, in the Capitanata, with 21,000 inhabitants, *Trani*, on the Adriatic, remarkable for its cathedral, with 14,000 inhabitants, and *Barietta*, noted for its salt works, and its flourishing commerce, with 18,000 inhabitants, are also important towns.

Palermo, the capital of Sicily, stands on a small bay in the northwestern part of the island. The streets are regular and wide ; the houses elegant, and several of the public squares very beautiful. The city is built in a semicircular plain or valley surrounded by mountains. This little nook of land is called *Conca d' Oro*, or the "Golden Shell," and abounds with fragrant groves of orange trees and acacias. Palermo has a university and considerable commerce. Population, 180,000.

Catania stands at the foot of Mount *Ætna*. Its streets are strait, spacious, and paved with lava. It is the busiest town in Sicily, and has a university, public library, museums, academies, &c. It was founded 700 years before the Christian era, and has suffered severely from eruptions of the mountain and from earthquakes. Population, 60,100.

Messina, upon the strait of that name, at the northeastern extremity of Sicily, is regularly built, and has one of the best harbors in the Mediterranean. Its fine quay extends more than a mile along the port. It is the first commercial town in the kingdom, and its trade extends to the North of Europe and America. It was completely destroyed by an earthquake in 1783, but has been rebuilt. Population, 85,000.

Syracuse, on the eastern coast of the island, is a strongly fortified town, with a good harbor. It has many Grecian antiquities. Population, 15,000. *Girgenti*, the ancient Agrigentum, on the south coast, has an indifferent harbor, but considerable trade. Population, 14,882. *Trapani*, at the western extremity, has some commerce and coral fisheries. Population, 24,330. *Marsala*, on the western coast, south of Trapani, is noted for its wines. Population, 21,000. *Caltagirone*, with 20,000 inhabitants, near the southern coast, is important for its manufactures and commerce.

11. *Agriculture*. The land belongs mostly to the clergy and nobles ; the cultivators are poor, and the country is imperfectly cultivated. On the continent wine, oil, silk, wheat, and maize, with the various fruits of warm regions, are produced ; in Sicily they raise the same articles, with flax and hemp.

12. *Commerce and Manufactures*. The maritime commerce is confined chiefly to the exportation of natural productions, and is mostly carried on by foreigners. Inland trade is obstructed by the want of good roads, navigable rivers and canals. Manufactures are more flourishing in Naples than in Sicily. The silk, woolen, and cotton manufactures are considerable ; linen, metallic wares, and articles of marble, and precious stones, are also produced.

13. *Government*. The government is an absolute monarchy, hereditary in the male and female line. The revenue is about 15,000,000 dollars, the debt 100,000,000. The army consists of 60,000 men ; the navy of 1 ship of the line, 3 frigates, and 8 smaller vessels.

14. *Religion*. The religion of the natives is the Roman Catholic, but there are some Jews, and members of the Greek Church. The clergy are in possession of nearly two thirds of the

landed property of the kingdom. There are 16 archbishops, 77 bishops, 410 abbots and priors, 32 secular priests, and about 22 monks and nuns.

15. *Education.* There are four universities, at Naples, Palermo, Catania, and Messina. The principal towns both of Naples and Sicily all have lyceums for preparatory instruction, and especially for classical studies. Some primary schools have been established in Sicily, but the common people are extremely ignorant.

16. *History.* This part of Italy was anciently occupied by Greek colonies, who covered it with flourishing and splendid cities. It afterward formed part of the Roman Empire, and subsequently underwent various vicissitudes, and belonged to different foreign powers. The Norman knights who expelled the Greeks and Saracens from this country in the 11th century, were the founders of the kingdom of Naples. Roger the Second, in 1130 assumed the title of King of Naples and Sicily. The better to confirm his title he received the kingdom as a fief from the Pope. From this period till within a few years, the Roman Pontiff has received an annual fee of a horse and a purse of ducats, as an acknowledgment of liege duty from the king of Naples. The sovereignty was even transferred by the Pope to the House of Anjou. Sicily came into the hands of the king of Arragon in the 13th century, and the two countries were divided for some time. Ferdinand the Catholic conquered Naples, and for two centuries the united kingdom remained a Spanish province. Naples fell to Austria at the peace of Utrecht, but was re-conquered by Spain, and in 1759 became an independent kingdom under a Spanish prince. The French revolution caused the establishment of the *Parthenopean Republic* at Naples, in 1799, but this was quickly overthrown. Napoleon gave the kingdom of Naples to his brother Joseph, in 1806, and transferred it to his brother-in-law Murat, in 1808, but the year of Waterloo restored the ancient king. In 1820 a constitution was accepted and sworn to by the king, but an Austrian army abolished it at the point of the bayonet.

CHAPTER XIX.

THE IONIAN ISLANDS, MALTA, AND GOZZO.

Ionian Republic. This republic consists of several islands,* lying near the coast of Greece and Albania, between 35° 50' and 39° 57' N. latitude. They contain 1,000 square miles, and 240,000 inhabitants. The republic is in fact a dependency of Great Britain, having been placed under the immediate protection of that power by the Congress of Vienna, in 1815. There is a legislative assembly consisting of representatives from the several islands, but their acts are subjected to the approbation of a British Lord High Commissioner. The British also maintain garrisons in all the fortresses, and all the military forces of the republic are under the direction of the British commander-in-chief. The inhabitants are Greeks, with some Italians and Jews. The climate is mild, and the olive, lemon, orange, and fig flourish throughout the year. The revenue of the republic is about 450,000 dollars; the national militia, 1,600 men, and the British troops in the different garrisons amount to 4,400.

Corfu. This island is the *Phæacia* sung by Homer; it is separated from the mainland of Albania by a strait 6 miles in width, obstructed by shoals. It is 60 miles in length and 30 in extreme breadth, and contains a population of 70,000. The chief wealth consists in olive trees, of which the islands contain 3,000,000. The oil yearly exported amounts to 300,000 jars, containing 33 pounds each. Corn and wine are also produced in small quantities. The town of *Corfu* contains 25,000 inhabitants, and has a harbor strongly fortified. Here is a college with a library of 30,000 volumes. *Paxo* lies 8 miles southeast of *Corfu*. It is 7 miles long and 3 broad, and nearly covered with olive trees. It has some commerce and a population of 4,000.

Santa Maura is the ancient *Leucadia*; the channel which separates it from the continent is only 50 paces broad, and was cut by the Carthaginians or Corinthians. The island is 50 miles in compass, and contains 22,000 inhabitants. *Amaxiki*, the principal town, has a population of 5,500. *Cephalonia* is the largest of the group; it is 40 miles in length and 30 in mean breadth, containing 364 square miles and 70,000 inhabitants. A lofty ridge passes across it, one of the peaks of which is 4,000 feet in height. Oil, muscadine wine, cotton and honey are produced here, and the inhabitants have some manufactures. *Argostoli*, its capital, has 5,000 inhabitants.

* *Corfu, Paxo, Santa Maura, Ithaca, Cephalonia, Zante, Cerigo, Merlera, Fano, Antipaxo, Calamo, Meganisi, Co-*
ignato

Ithaca or *Theaki* lies between Cephalonia and the continent. It is 50 miles in circumference, and is rocky and mountainous. Population, 8,000.

Zante, the ancient *Zacynthus*, lies near the Morea, 17 miles southeast of Cephalonia. It is 24 miles long and half as broad. It is pleasant and fertile. Its chief production is currants, of which it exports annually 7,000,000 or 8,000,000 pounds, being somewhat more than half the quantity produced in all the Ionian islands. Here is a spring of bitumen which affords 100 barrels yearly. The population of the island is 50,000. *Zante*, the capital, is the only large town; it has a good harbor and 20,000 inhabitants.

Cerigo, the ancient *Cythera*, lies on the southern coast of the Morea. It is 17 miles long and 10 broad. It is mountainous, and abounds with hares, quails, turtle, and falcons. Large flocks of sheep and goats are reared here. Population, 10,000. The capital is Capsali.

These islands, after having been under the sway of the Greeks, Romans, Venetians, and French, were taken by the British, in 1810, and remained in their hands till 1815, when they were declared an independent State under the protection of Great Britain.

Malta, *Gozzo*, and *Comino*. These islands belong to the British. They lie about 50

miles south of Sicily. *Malta* is 20 miles long and 12 broad, and was originally nothing but a barren rock, but such quantities of soil have been carried to it from Sicily and Africa, that it is now fertile and well cultivated. Oranges, lemons, figs, cotton, and wine are produced. Here is still pointed out the scene of St. Paul's shipwreck, on his voyage to Rome, although some writers think, that the island of Melita mentioned in Scripture, is in the Adriatic Sea. The population is 100,000; they are of Arabian descent, mixed with Italians and Greeks. Their language is a medley of different tongues, among which Arabic is predominant. The religion is Catholic.

The capital, *Valletta*, is remarkable for the magnificence of its buildings, and the strength of its fortifications. The church



St. Paul's Bay.

of St. John, and the palace of the grand-master of the knights of St. John, are noble buildings; the latter contains a magnificent armory. The hotels of the knights, the great hospital, with its accommodations for 2,000 patients, who were attended by the knights, and its vessels of solid silver, and the immense granaries, cut out of the rock, and capable of containing corn

*View of Malta.*

enough to maintain the garrison for 20 years, are among the remarkable objects. Population, 50,000.

The island of Gozzo is separated from Malta by a strait four miles in width. It is twenty-four miles in circuit, and produces sugarcane. Its population is 19,300. The capital is *Rabatto*. *Comino* lies between Malta and Gozzo; it is fortified and has 600 inhabitants.

These islands were possessed by the Carthaginians, Romans, and Saracens, successively. On the expulsion of the Saracens, they became a dependency of Sicily. In 1530, Malta was given by the Emperor Charles the Fifth, to the knights of St. John of Jerusalem, in whose possession it remained till 1798, when it was taken by the French under Bonaparte on his voyage to Egypt. It was captured by the British in 1800, who at the peace of Amiens agreed to restore it to the knights, but their refusal to do this occasioned a renewal of the war. At the treaty of Paris, in 1814, these islands were ceded to Great Britain, and now form one of the most important naval establishments of that power.

CHAPTER XX. GREECE.

*Ruins at Athens.*

1. *Boundaries and Extent.* Independent Greece comprises the Morea and a portion of territory north of the isthmus, with the islands in the southwest part of the Archipelago. The

continental part is bounded N. by Turkey, E. by the Archipelago, S. and W. by the Mediterranean or Ionian Sea. The northern boundary being a winding line drawn from the Gulf of Volo on the E. to the Gulf of Arta on the W. It extends from $36^{\circ} 22'$ to $39^{\circ} 20'$ N. latitude. The territory, including the islands, contains about 19,000 square miles.

2. *Mountains.* North of the isthmus is *Mount Parnassus* or *Liakoura*, consisting of a



Mount Parnassus.



Mount Helicon.

ridge running northwest and southeast. The name is more strictly applied to one of the eminences near the village of Delphi. The summit consists of limestone with veins of marble containing imbedded sea shells. It is bleak, and almost destitute of herbage; its height is about 5,700 feet. To the south-east of Parnassus is the ridge of *Helicon*, separated from it by the plain of *Livadia*. Its form is remarkably picturesque and graceful. It is lofty and steep, but its grandeur is softened to the eye by the figure of the cliffs and intervening hollows, by the woods which still cover them as in ancient times, and by the beautiful slopes connecting them with the subjacent plains. The Morea has numerous mountain ridges, the highest of which is *Zeria* or *Trikala*, the ancient *Cyllene*; it surrounds the famous lake *Stymphale*, the scene of one of the exploits of Hercules. In Arcadia are the mountains of *Lycaeus* and *Menalus*, upon which Apollo mourned the loss of *Daphnis*. They are covered with magnificent trees, and with oaks of an extraordinary height. *Mount Taygetus* is a lofty ridge extending to the south, and terminating at Cape Matapan, the southern extremity of Greece. Another range of heights occupy the ancient territory of Argolis. *Mount Geranion* runs across the isthmus of Corinth. These mountains are everywhere traversed by narrow defiles impassable to artillery or cavalry.

The valleys are immense basins surrounded by the mountains, and exhibiting the appearance of a great number of distinct craters, each containing a spacious level.

3. *Rivers.* The *Aspropotamos*, or ancient *Achelous*, flows into the Ionian Sea. The *Cephissus* runs into the Lake of *Livadia*. The *Alpheus* and *Eurotas* are the chief rivers of the Morea. All these are small streams.

4. *Islands.* *Negropont*, the ancient *Eubaea*, is a narrow island 100 miles in length, separated from the mainland of Greece by the Euripus, a strait so narrow, that it is crossed by a draw-bridge. The tides in this strait are subject to a remarkable irregularity, which has never been explained. The island contains 60,000 inhabitants, and has several good harbors. It abounds in corn and vineyards, and maintains numerous flocks of sheep. The honey produced here is delicious, and owes its fine quality to the abundance of roses on the island. Marble and asbestos are found here. *Negropont* or *Egripo*, the capital, stands on the western shore of the island, where the bridge connects it with the continent. It is well fortified. Population, 6,000.

Hydra is the most important of the islands, although one of the smallest. It lies close to the eastern coast of the Morea, and is little more than a barren rock. It does not appear to have been inhabited in ancient times, but is now the most important naval station in Greece, and its fleets gained many victories over the Turks during the revolution. The town of *Hydra* stands on the northwestern side of the island, and has a good harbor. Its white houses rising in ranges from the water up the side of a rocky hill, make a very picturesque appearance. The

town is well built, and the houses display much neatness and elegance. The inhabitants are occupied exclusively in maritime affairs. There is no other town on the island. Hydra contains 20,000 inhabitants. * *Spezia*, near Hydra, is another rocky island, distinguished by its naval warfare with the Turks. Population, 7,000. *Poros* has a good harbor, and a town with 3,600 inhabitants. *Tino*, *Andros*, *Scopelos*, *Zea*, *Miconi*, *Siphnos*, *Seriphos*, *Syra*, *Naxos*, *Santorini*, *Egina*, *Salamis*, *Paros*, *Milo*, are inhabited by a population varying from 3,000 to 15,000; *Tino* with 22,000, and *Syra* with 42,000, being the only ones which exceed the latter number.

Paros has 2,000 inhabitants, and produces marble, which has been celebrated from all antiquity. *Antiparos*, in its neighborhood, is celebrated for its grotto, which is one of the most remarkable in the world. The traveler enters first into a cavern, but after advancing a short distance, frightful precipices surround him on every side.



Grotto of Antiparos.

The only way of descending these steep rocks is by means of ropes and ladders which have been placed across wide and dismal cliffs. Below them, at the depth of 1800 feet from the surface, is found a grotto 360 feet long, 340 wide, and 180 in height, covered with the most beautiful stalactites. † This cavern was discovered in the 17th century, by Magni, an Italian.

5. *Bays and Gulfs.* The *Gulf of Lepanto* is a long narrow inlet of the sea, bounding the Morea on the north. The *Gulf of Egina* lies between Attica and

the Morea and is separated from the *Gulf of Lepanto* by the isthmus of Corinth. The gulfs or bays of *Napoli*, *Coron*, and *Colocythia*, are also in the Morea. The *Gulf of Volo* in the northeast, and that of *Arta* in the northwest, form a part of the boundaries.

6. *Capes.* *Cape Matapan*, the ancient *Tenarium*, forms the southern extremity of the

* "Its present inhabitants had the same general origin as their Albanian neighbors of the Argolic peninsula, and retired here to escape Moslem oppression. Before the Russian war of 1769, they were few in number, but when the Ottomans came again into possession of the Morea after that war, Hydra was one of the asylums of those who fled from the proscriptions which ensued. At the beginning of the French revolution, there were only a few latin vessels and fishing-boats belonging to the island. But this event threw into their hands a lucrative carrying trade, gave spirit and boldness to their enterprise, increased the number and size of their vessels, and extended their commerce from the Black Sea and Egypt, to the western countries of the Mediterranean, and one of their vessels even ventured across the Atlantic to our shores. Some of the inhabitants, and especially the two *Conduriottis*, became exceedingly rich. At home, the *Hydriotes* enjoyed perfect liberty under a domestic government of their own creation, and the protection of the Captain Pasha, and no Turk was allowed to do more than set his foot on the island. But on the sea, their commerce enjoyed no protection, and, to defend themselves from the *Barbary* pirates, they invariably went armed with from 8 to 30 cannon, and were manned with from 35 to 70 men. . . . The result was, that at the commencement of the Greek revolution in 1821, the Turks, to their great surprise, found this little island prepared, in money, ships, and arms, to take sea against them with a respectable squadron. One of the most intelligent of the citizens told us, that they then had 80 square-rigged vessels. He said the number had since been reduced to little more than 30, though less than 300 *Hydriotes* were slain during the war. The enemy never attacked the city, nor ventured between the island and continent." — *Anderson's Observations upon the Peloponneseus, and Greek Islands.*

† "The roof, which is a fine vaulted arch, is hung all over with icicles of a white shining marble, some of them 10 feet long and as thick as one's middle at the root, and among these there hang a thousand festoons of leaves and flowers of the same substance, but so very glittering, that there is no bearing to look up at them. The sides of the arch are planted with seeming trees of the same white marble, rising in rows one above another, and often inclosing the points of the icicles. From these trees there hang also festoons, tied, as it were, from one to another, in vast quantities; and in some places among them, there seem rivers of marble winding through them in a thousand meanders. The floor we trod upon was rough and uneven with crystals of all colors growing irregularly out of it, red, blue, green, and some of a pale yellow; these were all shaped like pieces of saltpetre, but so hard, that they cut our shoes; among them, placed here and there, are icicles of the same shining white marble with those above, and seeming to have fallen down from the roof and fixed there, only the big end of them is to the floor. To all these our guides had tied torches, two or three to a pillar, and kept continually beating them to make them beam bright. You may guess what a glare of splendor and beauty must be the effect of this illumination among such rocks and columns of marble. All round the lower part of the sides of the arch are a thousand white masses of marble in the shape of oak trees; one of these chambers has a fair white curtain, whiter than satin, of the same marble, stretched all over the front of it. In this we cut our names and the date of the year, as a great many people have done before us. In the course of a few years the stone blisters out like this white marble over the letters." — *British Magazine, February, 1746.*

Morea, and is also the most southerly point of the European continent. *Cape Colonna*, the ancient promontory of Sunium, is the southeastern extremity of Attica.

7. *Climate.* The climate of Greece resembles that of Spain and Italy, except that the extremes both of heat and cold are somewhat greater. In Attica, winter begins in January, and snow seldom lies longer than a few days, except upon the mountains. February begins with gentle rains, and in this month is the commencement of spring. In the beginning of March, the vines and olives bud, the almonds blossom; the corn reaches a considerable height; during this month, and is reaped in May. The zephyr, a west wind, is famed for its balmy softness. The south and southeast winds are humid. The sirocco is felt in Greece, and is attended here with its common effects. The coldest weather is accompanied with a northeast wind. The north and northwest winds are severe and dry. The sky is in general cloudless, and at the end of summer the fields are parched with excessive heat.

8. *Soil.* A great part of the country is rocky and mountainous; yet the cultivated parts have generally an excellent soil. In Attica the soil is light. Bœotia, Argos, Messenia, and Arcadia are the most fertile districts. Nearly the whole soil rests on a stratum of limestone.

9. *Vegetation.* The most common and remarkable trees and shrubs from Cape Matapan to Mount Olympus, are on the plains and hills; the olive, the shrubby jasmine (*Jasminum fruticosum*), the *Styrax officinale*, the strawberry-tree (*Arbutus unedo*), and *Arbutus Andrachne*, the myrtle and pomegranate, the cherry laurel, and locust-tree (*Cercis siliquastrum*), the pistachio (*Pistacia lentiscus*) and terebinth (*P. terebinthus*), yielding, the former the celebrated mastich, and the latter gum-terebinth, the *Cistus creticus*, from which is obtained gum laudanum, the caper bush (*Cappara spinosa*) supplying caper of commerce, the sweet-bay or poetical laurel (*Laurus nobilis*), the fig (*Ficus carica*), the white and black poplars, aspen, celtis australis, the cypress (*Cupressus sempervirens*) and stone-pine (*Pinus pinea*), the juniper and savin, &c., on the banks of running waters and in damp spots are found the oriental plane (*Platanus orientalis*), the white, weeping, and crack willows, alder, the chaste tree (*Vitex Agnus castus*), and the oleander. The mountains produce the *Abies taxifolia*, the beech, willow, Scotch fir, yew, common oak, ash, chestnut, hazel, the flat-leaved lime (*Tilia platyphillus*), horse-chestnut (*Ausculus hippocastanum*), service-tree, mountain-ash, wild apple and pear trees, several oaks, &c. The orange and lemon are found within the limits above indicated, but north of the Morea only in favorable exposures; a few date-palms are seen near Athens, and the prickly fig does not extend beyond the Morea. The true mistletoe of the ancients (*Lorantus europæus*), of which bird-lime is made may be seen on the Arcadian oaks, and the banks of the Alpheus are covered with a profusion of the narcissus of the poets (*Narcissus tazetta*).

10. *Minerals.* This country formerly contained mines of gold, silver, iron, lead, and copper, but at present is not productive in minerals. Marble of almost every variety is abundant.

11. *Face of the Country.* Half the surface of Greece consists of mountains. The country is in general bare of wood,* and from the want of inclosures, the profusion of weeds and bushes, the thinness of the population, and the ruinous condition of the few cottages, combined with the crumbling remains of the noble structures of the ancients, has a desolate and melancholy aspect. Yet every feature essential to the beauty of a fine landscape is to be found here. The mountains, though not lofty, are imposing from the abruptness of their elevation. At their feet lie rich and sheltered plains, or romantic valleys; these, with spacious bays, islands, and seas, broken by headlands, inclosed by mountains and studded with islands in every possible variety of magnitude, form and distance, render Greece superior in scenery to almost every other part of Europe.

12. *Divisions.* The kingdom is divided into 10 districts or nomoi, which are subdivided into 47 eparchies.† Population, 800,000.

13. *Towns.* Athens, the capital, about 5 miles from the Gulf of Ægina, is one of the most celebrated cities in the world; long the seat of ancient learning and art, and decorated with innumerable masterpieces of architecture and sculpture, it still retains in its ruins some traces of its past splendor; but it has suffered much during the late war of the revolution, having been sev-

* The Egyptian army, which ravaged the Morea in 1825, cut down more than half a million olive trees in the single province of Upper Messenia.

† *Nomoi.*
Argolis (Corinth, Hydra, }
Spetzia, Poros), }
Achaia and Elis,
Messenia,

Capitals.
Napoli or Nauplia
Patras.
Cyparissæ, or Arcadia.

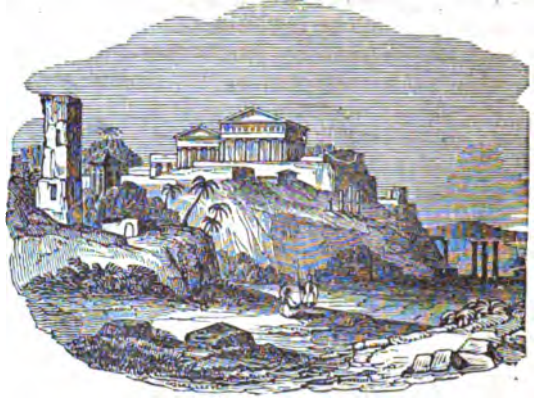
Nomoi.
Arcadia,
Laconia,
Acarmania and Etolia,
Phocis and Locris,
Attica (Bœotia, Ægina),
Eubœa (with Northern Sporades),
Cyclades

Capitals.
Tripolizza.
Misitras.
Vrachori.
Salona, or Amphissa
Athens.
Chalcis.
Hermopolis in Syra.

eral times attacked by the contending parties. The modern city occupies only the northern and central parts of the ancient Athens. Some vestiges of the ancient walls are visible ; the Acro-

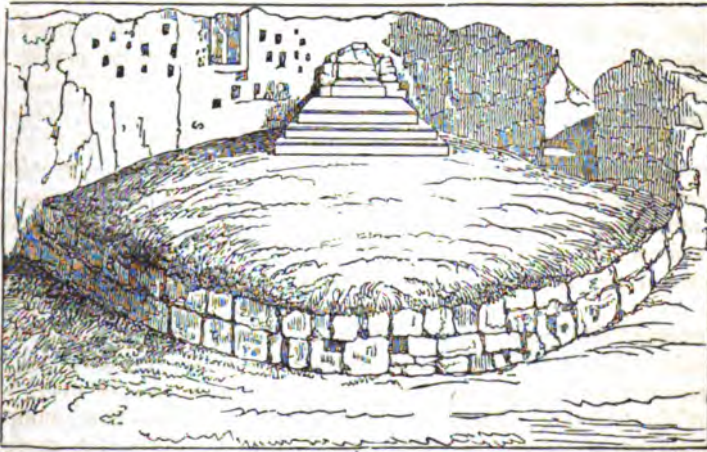


Athens.



The Acropolis.

polis, or citadel, stands upon a high rock, and is still susceptible of defence, but its walls have often been renewed ; within is the Parthenon, the temple of Athene or Minerva, now in ruins ; to



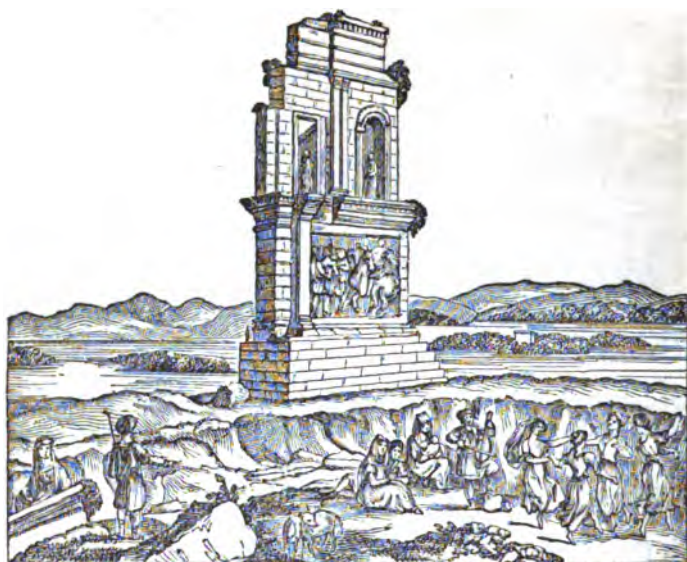
Mars' Hill.

the west, is the Areopagus, or Mars' Hill ; below, to the east, stand the remains of the once splendid temple of Jupiter Olympus, which was one of the largest in Greece, combining Attic



Mt. Parnas. Temple of Theseus. Acropolis. Temple of Jupiter Olympus. Mt. Hymettus.

elegance with Oriental magnificence ; it contained a famous colossal statue of Jupiter, made of gold and ivory. The temple of Theseus ; the octagonal tower of the winds ; the monument of Philopappus, near which is shown the Pnyx, or place in which the popular assemblies were



Isle and Gulf of Salamis. Monument of Philopappus, in the foreground the Pnyx. Mt. Parnes.

held, and whence the Athenian orators of old “thundered over Greece;” the choragic monument of Lysicrates, called also the Lantern of Demosthenes ; Adrian’s Gate, and some other edifices are in a more or less complete state of preservation. The population of Athens before the late war, was about 15,000. In 1845, it had 31,700.

In the neighborhood are *Lepsina*, the ancient Eleusis ; *Marathon*, a small village, upon the plains of which the Persians were defeated by the Athenians under Miltiades, B. C., 490 ; and *Megarís*, before the late war a flourishing town, with 12,000 inhabitants, now but 2,000. *Livada*, near lake Copias, which formerly had 10,000 inhabitants, but quite ruined by the wars, has revived again, and now has a population of 6,000 inhabitants. In its vicinity are the ruins of the ancient *Thebes*, once one of the most important cities of Greece. *Salona*, in Phocis, situated near Parnassus, has some manufacturing industry, with from 5,000 to 6,000 inhabitants. In the same neighborhood, at the foot of Parnassus, is *Castri*, the ancient *Delphi* which contained the oracle of Apollo, resorted to, in ancient times,

from all parts of the world. Here is the fountain of *Castalia*. *Lepanto*, *Missolonghi*, where Lord Byron died, in 1824, and *Anatolico*, are in Acarnania and Ætolia, of which the capital is *Vrachori*.

The walls and other ruins of the ancient *Platæa* are still discernible, at the foot of Mount Cithæron. In the plain adjoining this town, the Persian army, under Mardonius, was totally defeated by the Athenians and Lacedemonians.

Nauplia, or *Napoli di Romania*, the capital of Argolis, is the most important town of the Morea, but its situation is unhealthy. It is the strongest fortress in Greece ; its vast citadel is



Platea.

called the Gibraltar of the Archipelago. The town is meanly built, and dirty. Population, 12,000. In the neighborhood are the ruins of *Argos*, *Mycenæ*, *Tyrinthus*, and *Træzene*. The Cyclopean walls, found in the vicinity of these places, composed of large blocks of stone, are of a remote, but unknown antiquity.

Tripolitza, capital of Arcadia, was the residence of the Turkish authorities, and the capital of the Morea, previous to the revolution; but its mosques, its seraglio, and castle, have been destroyed, and its population reduced to 2,000 or 1,500 souls. In the vicinity are the ruins of *Tegæa* and *Megalopolis*, ancient capitals of Arcadia, and of *Mantineæ*, cele-

brated for the victory gained by Epaminondas over the Spartans.

Mistra, or *Misitras*, the capital of Laconia, was reduced to a heap of ruins by the Egyptian forces during the revolution. It is picturesquely situated at the foot of mount Taygetus, and its citadel is still standing. The population does not exceed 2,000 souls. The ruins of *Sparta*



Sparta, now Mistra.

are in its vicinity. *Monembasia*, or *Napoli di Malvasia*, important for its port and its fortifications, is noted for its excellent wines, called Malmsey.

Modon, in the nomos of Messenia, is a small town, but has a good harbor, and is strongly fortified. Near it is the village of *Navarino*, in whose harbor the Turco-Egyptian fleet was destroyed by the combined Russian, English, and French fleet, in 1827. *Calamata*, in the same province, has hardly risen from its ruins, since the desolating campaign of the Egyptians in the Morea. *Coron*, which is also situated in Messenia, has a good harbor, and is strongly fortified.

Pyrgos, like *Calamata*, is beginning to recover from its late desolation. Near it are the ruins

of Olympia, in which the Olympic games were celebrated; here was the magnificent temple of Jupiter Olympus, containing the colossal statue of the god, 60 feet high, made of gold and ivory, by Phidias. *Patras*, the capital of Achaia, stands upon the shore of a gulf which bears its name. It is the centre of the commercial relations of the Morea with the rest of Europe, and contains 8,000 inhabitants. The monastery of Megaspilæon, in the neighborhood, is celebrated for its riches, its fortifications, and vast vaults; it contains 200 monks. *Calavrita*, to the southeast, is a small town.

Corinth, situated upon the isthmus of the same name, between two seas, once proverbial for



Modern Corinth.

its wealth and luxury, is now an inconsiderable place, but is rapidly recovering from the disasters of the war. Its citadel, or Acrocorinth, is a fortress of great strength. In the neighboring district stand the ruins of the ancient Nemæa and Sicyon.

Syra, on the island of the same name, is the capital of the Cyclades, and the principal commercial place in Greece. The commerce of Turkey, Europe, and Egypt, with the whole kingdom, centres here; the almonds of Scio, the wines of Naxos, the grapes of Patras, the oil and silk of the Morea, the wool of Romelia, the rice of Alexandria, &c., are collected in its harbor, thronged with vessels. Here also the pirates, that long infested these seas, disposed of their ill-got, but rich merchandise. Population, 25,000.

14. Agriculture. The long oppression which this country has endured from its Turkish masters, and the ravages of the recent war, have almost extinguished agriculture, notwithstanding the fertility of the soil. The vine and olive have always been the most important articles of cultivation. There are nine species of olives. Excellent wine is made in the islands. The raisins of the Morea are much esteemed. Cotton was extensively cultivated before the revolution. The sugar-cane and banana are raised occasionally. Oranges, lemons, almonds, and figs, are produced of high excellence. Maize, wheat, and barley are the most common grains. The plains of the Morea are well adapted to the culture of maize, and readily admit artificial irrigation by canals from the rivers. But a small proportion of the arable land is occupied, and the tools of the husbandmen are exceedingly rude.

15. Commerce and Manufactures. The revolution nearly annihilated the commerce of Greece, but it has somewhat revived, and the Greek marine now comprises about 4,000 vessels. The exports are fruit, oil, wine, dye-woods, gum, nut-galls, and drugs. There are

manufactures of coarse linen and cotton stuffs in the Morea, and fine silks, gauzes, and morocco in the islands. In mechanical skill and industry, the islands surpass the continental districts.

16. *Inhabitants.* The inhabitants of Greece are almost entirely Greeks and Albanians; there are also a few Jews, Armenians, Bulgarians, and Wallachians. The Greeks are above the middle size, and retain the distinguished personal beauty of their ancestors. Their eyes are large and dark, and their complexions clear. Their faces are of an oval form. They wear a moustache on the upper lip, and generally the hair is permitted to grow, except in front. The women are thought to be inferior in beauty to the men; but they have a graceful and dignified carriage. There are, at present, no distinctions of classes, though the dragoman or interpreter at the Porte, and the governors of Moldavia and Wallachia, had formerly the title of princes.

17. *Dress.* The dress is showy. The capote is a large woollen garment, with a hood, shaggy with short threads of yarn. It is heavy when dry, but nearly insupportable when wet.



Albanians.



Arcadian.

It often serves the wandering Greek for both house and bed, and it is a perfect defence against cold and dew. The prevailing dress consists of a short, embroidered jacket, without collar, and with sleeves open from the elbow; an embroidered vest, a cotton shirt, a tunic of several

folds, secured by a sash or shawl about the waist, and reaching to the knee; loose brogues, or trowsers, short socks, and slippers between sandals and shoes. On the head is a red cap, with a tassel in the top. The girdle or shawl is sometimes very expensive; and in one corner of this sash, the common people generally



Greek Soldier.



Greek Merchant.

carry their money. The rich carry their money in purses, which, with their handkerchiefs, watches, and snuff-boxes, they put in their bosoms. They affect to have their vests puffed out, as if distended with money, trinkets, and papers. The above dress, however, is not universally worn. The female costume is similar to the Turkish; a vest fitting closely to the breast, and a gown flowing off loosely behind. The sleeves, which are slit towards the waist, are longer than the arms, and are turned back. A zone circles the body once, loosely resting on the hip, tied in a spreading knot, or secured with a plate ornamented with jewels.

Gold and silver trimmings are worn to excess ; and bracelets of precious stones or strings of gold coins round the arm and neck. The younger girls often let their hair fall down their backs, and it is combed over their brows and cheeks. A little red cap with a gold tassel, studded with zechins, is fixed on one side of the crown, in which girls wear a bunch of flowers



Greek Woman spinning.



Athenian Peasant.



Greek Woman.

and matrons heron plumes, or jewels. In many places, the young women dye their hair an auburn color, with the plant called henna. The females when abroad are muffled up in a cloak, and they wear a veil, which is, however, not scrupulously closed.

18. *Language.* The modern Greek has so much resemblance to the ancient, that in general a native will comprehend what is said to him in the original language, if spoken according to the modern pronunciation. There is, however, some difference of construction. Italian is common.

19. *Manner of Building.* On this subject the Turks, the Arabs, and the Greeks themselves, have left us little to describe. The villages have been destroyed, and the habitations wantonly razed, in the same barbarous spirit that cut down hundreds of thousands of olive trees. The houses are of brick, stone, or wood, are whitewashed, and have terraces, but they are seldom large. At present, however, many of the poorer class, who have suffered in the desolation of the country, live in hovels and other temporary shelters. At Napoli and some other towns, the houses are many of them Turkish, the basements being occupied as stables, which are imagined to keep off the plague. The churches are numerous, beyond all parallel in other countries ; but many of them are mere oratories open only on a particular holyday. They are generally small, and built of stone, without much pretension to elegance.

20. *Food and Drink.* The food of the greater number consists principally of bread and vegetables, and all use a simple diet. Pilaf, or rice boiled with a little meat or butter, is common, and in the pastoral districts *yagourte*, or milk, coagulated in a particular way by lemon juice. There is little animal food consumed ; mutton is preferred to beef. In the numerous lasts, the food is principally olives, garlic, and fish. Wine is not scarce, but it is not used to much extent. Temperance is the national virtue. Tobacco is much used and chiefly in smoking. A visiter to a family of wealth, is always offered a pipe, water, coffee, and sweet-meats.

21. *Diseases.* The whole of Greece is subject to pestilential fevers, which lose none of their malignancy by the means adopted for cure. The ignorant seem to think, that sickness is the visitation of a demon, and charms and exorcisms are employed to dislodge him ; and these ceremonies are but faintly assisted by jalap, manna, and salts, given in the smallest quantities. The physicians are ignorant, except a few who have been educated in the west of Europe. There is some leprosy and elephantiasis, which is seldom attempted to be cured. In autumn, the people in many places shut themselves up, and will hardly look into the street. Plague, the most terrible of all maladies, is personified in the form of a decrepit hag, that sometimes comes at midnight to the window, and knocks.

22. *Traveling.* There are few foreigners who travel in Greece, and these generally visit the remains of antiquity. There are no roads in the Morea for carriages, though there are some traces of ancient ways. Travelers generally go with mules and carry their own beds,

cooking utensils, and some of their food, for the khans furnish little but a miserable shelter and a board to sleep on. At the best they afford only coffee, native wine, and bread and cheese. There are now no robbers in Greece, though before the revolution they were numerous. The country is so much impoverished that it costs little to travel in it; a traveling attendant will engage at 4 dollars a month, and board himself. Distance is marked by time; a form borrowed from the east, where the caravans are so regular, that it is a correct manner of expression. An hour's distance is 3 miles, and when a Greek would say that a place is distant 18 miles, he describes it at 6 hours. There is a strict system of passports, which secures the safety of a traveler. A line of stages has been recently established between Napoli and Argos.

23. *Character, Manners, and Customs.* Four centuries of slavery under the hardest, the most ignorant, and the most bigoted nation in Europe, every individual of which held almost absolute power over a Greek, must have had some unfavorable influence on the national character. Yet the national traits of the ancient Greeks are as plain in their descendants as the cast of countenance, that has come down to us in medals and statues. There is a great national similarity among all the Greeks. The very severity of the Turks, and the contempt in which they held the Greeks, had, however, its advantages, for had the conquered been allowed any equality of civil or religious rights, they might long since have been blended by intermarriages, and otherwise, with the conquerors.

The modern Greeks prove their descent, by possessing some of the virtues and all the faults of their ancestors. Slavery is but a bad school for morals, and in it the Greeks have acquired hypocrisy, obsequiousness, and such a tendency towards falsehood, that, generally speaking, their assertions are not to be relied upon, unless it is for their interest to speak the truth. Aristides, who displeased some of his countrymen in being called the just, would be little envied at the present day for such a trait of character. But the situation of the Greeks under the Turks was favorable to a profitable trade, though it was not safe for them to appear rich; this and other motives for dissimulation, which the oppressed always have, have left a trace on the national character that better institutions will remove.

The Greeks are vain, passionate, and versatile, but they have proved themselves as brave as the bravest of their ancestors. Their enterprise and invincible endurance in the unequal struggle of the revolution, was confined to no class, and the females themselves were worthy of Sparta. The "Sacred Band," composed of 500 young men, the flower of Greece, assumed on their banner, "Liberty, Death, or Freedom," and were destroyed on their post by the enemy's cavalry. They bore also on their banner, the charge of the Spartan mother delivering a shield to her son, "Either this, or upon this."

The vanity and ostentation of the Greeks are invincible. At Constantinople it used to be accorded to the Princes of the Fanal, to wear yellow slippers, as an honorable distinction, to assume which, by a common Greek, was punished with the greatest severity. The late Sultan, in one of his walks, discovered a Greek in yellow slippers, which he had assumed to gratify a momentary feeling of vanity, and caused him to be immediately beheaded; yet it was not uncommon to see others running the same risk. A dragoman, against the remonstrances of all his friends, would display his wealth in a magnificent house. His riches tempted the cupidity of the authorities, and he was beheaded; yet another of his countrymen immediately occupied the same house. Another dragoman had the prudence, when he erected a large house, to paint it in 3 divisions, of separate colors, so that to passengers it seemed to be 3 houses, though he occupied the whole.

The Greeks are fond of money, but not from a principle of avarice, for they are ostentatious, profuse, and generous. They are kind and indulgent; and the females are characterized as uncommonly amiable in disposition. A great man, or in other words, a rich one, when he meets an inferior in the street, omits none of the usual ceremonies of salutation. Both stand with their right hands upon their breasts, bowing for several minutes, while they inquire of each other's family and welfare. The manners of the Greeks are exceedingly engaging, though too much mingled with an air of obsequiousness. They are very attentive to the rights of hospitality. In the inland towns a stranger seldom sees the females, who are nearly as much secluded as those of Turkey. They occupy a separate part of the house, and are seldom seen but by members of the family. After marriage, they have the privilege of being introduced to people of their own rank and to travelers.

The patriotism of the Greeks is undoubted, though it is not always directed by prudence. Their love of country was formerly necessarily connected with hatred to the Turks, not the

was intense from the necessity of concealment. The elements of their revolution have existed for many years. It was common, when one heard the chanter from the mosque announce the death of a Turk, to say to another, with satisfaction, "a dog is dead." They are animated in conversation, and use frequently many forms of oath. A Greek swears "by my bread," "by my father's head," "by the life of my children," &c. The females say, "by my eyes," and "by my soul." "My son," is a general term of endearment, used even by the young.

24. Amusements. Cards are common, and the Greeks are often seen intently engaged with them at coffee houses. Dancing also is much practised, and also the story-telling so common in the East. There are, however, no professed story-tellers, but each one in a circle relates a tale.

25. Education. The most of the means of instruction have been swept away by the war of the revolution. There were several printing presses. There was a college at Haivali of 200 students, and another at Scio of more than 500. The "Sacred Band" was composed principally of young men who returned from foreign universities, chiefly those of Germany and Italy. The females receive but little instruction, and few of them can read. Education, though at a low ebb, is receiving much aid from foreign sources, and the Greeks themselves are as liberal in its support as their poverty will allow. A university has lately been founded at Athens, and there is a general desire to send the youth to schools. In languages, the youth have always been distinguished for proficiency, and many are familiar with 5 or 6. There are 12 newspapers in liberated Greece, 1 in French, and the others in the language of the country.

26. Arts and Sciences. The arts are wellnigh extinct in the country where they were once the most perfect. The Turks hardly tolerated them, and during their sway, the state of property was too insecure for the encouragement of the fine arts, or for the collection and preservation of ancient models. The music is simple, but monotonous, and it has but one part. The songs are numerous, for the Greeks delight in poetry, and have the facility of the Italians in versification. Their amatory pieces, in which they chiefly delight, though not formed on the model of Sappho, yet, (says Hobhouse,) speak the very language of love, being exceedingly extravagant.

27. Religion. The Greek Church has a great resemblance to the Roman Catholic. The laws, however, secure religious toleration. The number of ecclesiastics is very large; they are supported chiefly by gifts, and fees for the various sacraments and ceremonies. They are not compelled to live in celibacy. They wear their beards, and a peculiar dress. On Mount Athos are several communities of recluses, called caloyers, amounting to nearly 6,000. They cultivate the ground, have vineyards and orchards, and exercise mechanical trades; mendicant brothers from these, as well as from the monasteries of Patmos, are to be found throughout Greece. Among other absurdities, they administer the extreme unction, by anticipation, to whole households. The Virgin Mary is the great object of veneration, and there is no cottage without her picture with a light before it. Statues, which are so prevalent in the Roman church, are inadmissible in the Greek, where paintings are universal. The churches are small and plain, such as might have been common in the Apostolic times. Men and women sit apart, and have separate entrances. In praying they face to the east, and seldom kneel; probably from original dislike to the Turks, who are very precise in their posture for prayers. There are only 130 days in the year free from fasts, which are strictly kept. The lent at Easter lasts 2 months, and at Christmas 40 days. Wednesdays and Fridays are fasts throughout the year; the former day, because on that day Judas received the money for his treachery. Much of the joyful part of religious festivals is retained.

The weddings are celebrated with rejoicings, and a procession attends the bride to her future home. In the procession are often many young girls, dressed in white, preceded by music, and who scatter flowers in the path. The funerals are attended with show. The body is richly dressed and strewed with flowers. A long procession is formed, and two or three old women hired for the occasion walk by the side of the bier, howling, and asking of the dead such questions as these, "Why did you die? you had money, friends, a fair wife, and many children. Why did you die?" On the 9th day after, a feast is given by the nearest relative, accompanied with music and dancing. The cemeteries are not in churches, but generally near a town, on the highway. They are shaded with cypress or yew.

28. Government. The government is a constitutional monarchy, the crown being heredita-

ry in the descendants of the present Otho, a Bavarian prince, who has been seated on the throne by the great powers of Europe. There are two legislative houses, a Senate, and a House of Representatives, chosen by the qualified electors. The revenue is small, and insufficient for the support of the government.

29. *Antiquities.* In ancient Greece, art embellished what nature had made beautiful. Greece and the islands are in the most favored climate, and in the temples the richest marbles retain their beauty, while the sculptures have preserved for ages their most delicate carving. The surface of the statues is now as smooth as when they came from the hands of the sculptor. No country was ever adorned like ancient Greece, and none can be again. She has left no monument that is not now a model in literature and art. The elegance, simplicity, and grandeur of her temples, standing frequently upon some hill or headland to which they seemed appendages, attracted the eye of the mariner at a distance from the shore. Wherever a Greek went, in his own country or colonies, he beheld among architecture and sculpture, objects that refined his mind, and gave new aliment to its natural taste for the beautiful. A temple was then more than any temple is now. The frieze, and other parts that would permit sculptures, were peopled with figures, that, mutilated as they now are, are the best preservative and school of art.

The antiquities of Greece are chiefly architecture and sculpture. Yet all but the very temples have been exported to different parts of the world. The best, even of the temples, the Parthenon itself, has been dilapidated and pillaged by a British Ambassador, and her best ornaments are now in England. Vases, statues, &c., are often found in excavations, at the ancient cities, and it is probable, that hereafter many of great excellence may be recovered, and form a national museum for Greece.

In the Peloponnesus, whose ruins we shall first describe, the traveler cannot go far without falling among the remains of greatness. The most of them are so broken, that scarcely a perfect column now exists, but others are in such a state of preservation, that, at a distance, they seem entire. At Bassæ is the temple of Apollo Epicurius. The frieze representing the



Ruins of Ancient Corinth.

war of the Centaurs and Lapithæ, and of the Greeks and Amazons, has been carried to England. The temple is 125 feet long with a front of 48 feet. There are 13 columns in the side, and 6 in the front. It is one of the most impressive remains of the ancient Greeks. At

Nemæa, are three Doric columns of a temple of Jupiter; the breadth of this edifice was 66 feet, and the length more than double the breadth. The columns are more than 5 feet in diameter, and nearly 32 feet high. At Mycenæ the gate of the sun is the earliest authenticated sculpture in Europe. A circular wall of large blocks incloses an area of 62 feet diameter, and in this are the two gates. The architraves are fallen, but one is unbroken, and leans upon the wall, from the ground. It is 19 feet long.

The subterranean edifice covered with a mound of earth, and called the Treasury of Atreus, has been supposed also to be the tomb of Agamemnon. The form is that of a bee-hive. The interior shows many brass nails, which were probably used to secure metal or marble plates. The dome is 50 feet high, and $47\frac{1}{2}$ in diameter; over the entrance is an enormous stone, 27 feet by 17. At Jero are many ruins, and a cistern in good preservation, 40 feet in length and more than 100 in breadth. There is the vestige of a great temple to Æsculapius, with inscriptions on some loose marbles of some of his cures. There are good sculptured marbles, and the theatre is the most perfect in Greece. The proscenium only is gone. The orchestra is 89 feet in diameter, and there are 55 rows of seats remaining. Pausanias describes this theatre as the most beautiful he had ever seen.

The walls of Tirinthus, a sort of fortification on a hill, are nearly perfect, though erected 1379 years before Christ. They are nearly 25 feet in thickness. At Sparta, Argos, and Corinth there are few distinct ruins. Near the latter is an amphitheatre, cut in the rock, and at Sparta are the remains of a large theatre, which has some marks of Roman architecture or repairs. But the ruins of Sparta are hardly to be traced. At Corinth are 7 columns, supporting their architraves, of the Doric order. They are of stone. They are heavy and inelegant, and of great antiquity. (*See cut on page 699.*)

The islands have many ruins. At Caularia are the remains of the Temple of Neptune, where Demosthenes expired, and his monument remained in the precincts of the temple, in the second century. At Ægina is the Temple of Jupiter Panhellenæus, one of the most ancient and remarkable ruins of Greece. The inhabitants of Ægina, in a very remote age, attributed it to Æacus. There are 23 Doric columns standing on a mountain, and rising among trees. In several other islands are theatres, in good preservation, and dilapidated temples. Continental Greece, however, has the most perfect and interesting remains. Delphi has many mouldering ruins, but none in such preservation as to show how ancient art delighted to adorn that seat of the muses. The Castalian spring, issuing from a rock is received into a large square basin, with steps to it cut in the rock. There are niches cut also in the face and sides of the precipice. The present Delphians season their casks in the fountain, by which, says a traveler, they seem to preserve the ancient connexion between Bacchus and Apollo. There is no vestige of the Temple of Apollo, nor can its site be identified. The theatre has disappeared, but there are some traces of the stadium and gymnasium. The prophetic cavern is sought for in vain. The brazen pillar, that supported the tripod, is at Constantinople.

Athens, however, is the only place in Greece in which the traveler may, on a distant view, suppose, that he is not in a country of ruins. The distant view of the Acropolis and its temples, is, in general effect, what it was in the days of Pericles; but with the distance the delusion vanishes. The vicinity is seen strewn with ruins, among which are standing columns, and in the town, ancient marbles are found in the pavements and walls of houses. The first visit of a stranger is to the Acropolis, or citadel, as at Rome it is to the Forum. The top of the hill is surrounded by walls. The space is about 800 feet long and 400 broad; a noble esplanade for the magnificent structure that crowns it. The color of these monuments is of a golden tint, like autumnal foliage. The Parthenon, or Temple of Minerva, the great fountain of art, whose form and proportions are so often copied in Europe and America, is on the most elevated ground. It is an oblong parallelogram, with a vestibule and portico. The columns of these rest immediately on the steps of the temple, of which there are three. They are without bases, fluted, of the Doric order, 42 feet in height and at the bottom $17\frac{1}{2}$ in diameter. The whole structure was 218 feet in length and $98\frac{1}{2}$ in breadth. The portico or *pronaos* occupies about one third of the length of the edifice. The frieze of the vestibule was decorated with triglyphs of the Doric order, and between these were metopes, or tablets of marble, sculptured by Phidias or his pupils, with the battle of the Centaurs and Lapithæ. The top of the wall of the temple was decorated with other long basso relievos. Lord Elgin, the British envoy at Constantinople, caused the best of the sculptures to be taken down and removed. Within the walls are also included the relics of the Propylæa, and the ruins of the Temple of Victory. Behind the former, towards the city, is the Pandrosæum, and the double Temple of Neptune

and Minerva. The Temple of Theseus, in a large space on the plain, is in better preservation



Ruins of the Parthenon, Athens.

than the Parthenon, which it somewhat resembles, though it is more like the temples at Pæstum ; with the exception of the sculptures it is almost entire. The Areopagus was on an eminence



Ancient Greece and Asia Minor.

west of the citadel, but the ruins only are to be seen on the rock ; a little valley separates this

hill and that of the Pnyx from the hill of the citadel. The Pnyx is an esplanade, where the Athenians first held their assemblies ; a rostrum, with an ascent of four steps, is cut in the rock ; and here Pericles, Demosthenes, and Socrates harangued the Athenians. The hill of the museum is crowned with the tomb of Philopappus, an obscure person of the age of Trajan.

The Temple of Minerva, at Sunium, is of the Doric order, and the materials are of the whitest marble ; it is one of the most finished specimens of attic architecture. Fifteen columns are yet standing ; and though the marble nearest the sea is somewhat decomposed, yet such is the mildness of the climate, that the pencil marks made by travelers on the columns years ago, are as distinct as when first written. The Temple of the Winds is an octagonal edifice, of an imposing character, with figures sculptured in relief upon the sides. The monuments that are called Hadrian's Pillars, are, from their situation and magnitude, to be seen from almost every quarter. They are sixteen columns of white marble, of the Corinthian order and of exquisite workmanship ; each is six feet in diameter, and nearly six feet high. These are sometimes described as the remains of the temple of Jupiter Olympus.

30. *History.* Greece is the most celebrated country of all antiquity, and the land from



Young Alexander.

which the arts of civilization were diffused over Europe. In its earliest ages it comprised many small political divisions, independent of each other, but uniting to avert any common danger, or accomplish any purpose of general interest, as evinced in the Trojan war, and the struggles against the invading Persians. At a later period Alexander carried Grecian arms to the Indus and the language became prevalent in Syria and Egypt by means of his conquest. The whole country was conquered by the Romans and formed a portion of their great empire. It continued under the dominion of the Greek emperors till the establishment of the Ottoman power in Europe, when it

became a province of Turkey ; and for four centuries lay under the grinding oppression of its Mahometan conquerors.

In 1821 the Greeks rose in insurrection and declared their independence. A long and bloody



Struggle between a Turk and a Greek.

conflict ensued, in which they received indirect aid from many parts of Europe, and from the United States, although no government offered them any open encouragement. After the country had been thoroughly devastated, and abundant scenes of bloodshed, rapine, and desolation had evinced the determination of the Greeks not to submit, the governments of Russia, France, and England thought fit to interfere from motives of humanity. The negotiations for this purpose would, perhaps, have resulted in nothing, but for a fortunate blunder of the British admiral, who, not understanding the niceties of the matter upon his hands, attacked the Turks at Navarino, and annihilated their marine at a single blow. This event es-

tablished the independence of the Greeks. The Turks were unable to make head against their revolted subjects from this moment, and the allied governments finding themselves fairly committed in the business, persisted till the Sultan was brought to terms. By the protocol of March, 1829, Greece was left to its own government, with a tribute of a million and a half of piasters to be paid annually to the Porte.

CHAPTER XXI, EUROPEAN TURKEY



Mahometan Mosque.

PHYSICAL GEOGRAPHY.

1. *Boundaries and Extent.* European Turkey is bounded N. by the Austrian and Russian territories ; E. by the Black Sea, the Sea of Marmora, and the Archipelago ; S. by Independent Greece ; and W. by the Adriatic. The continental part extends from 39° to 48° N. latitude, and from 16° to 30° E. longitude. It comprises 210,000 square miles.

2. *Mountains.* The *Carpathian Mountains* form a part of the northwestern frontier ; but the first great mountain barrier of Turkey, on the north, is the chain called the *Balkan*, or *Emineh Dag*, anciently called Mount Hæmus. It extends from the western limit of Turkey to the Black Sea, and its numerous branches intersect the whole of the territory south of the Danube. The loftiest point is Mount Orbelus, 9,660 feet in height. The defiles of these mountains are nearly impassable during winter. The summits generally consist of masses of naked granite, but in some parts they are covered with thick forests. The *Hellenic Mountains*

constitute a range extending from the Balkan, southerly and southeasterly, into Greece, and terminating at the promontory of Sunium, in Attica. This range divides the northern part of ancient Greece into two portions of nearly equal breadth. Pindus, Cithæron, and Parnassus were the ancient names applied to different branches of this range. The celebrated *Mount Olympus*, which the ancients considered the loftiest summit in the world, is near the western shore of the Gulf of Salonica, and is between 6,000 and 7,000 feet high. Its base and sides are covered with thick woods of oak, chestnut, beech, and plane trees, and the higher parts with pines. There were many other mountains called Olym-



Mount Olympus.

pus, in different parts of Greece. Further east, a second branch leaves the main chain of the Balkan, and traverses Bulgaria and Rumelia, terminating on the Archipelago and Sea of Marmora, in numerous spurs. It is called *Mount Rodope*, or *Despoto Dag*, and reaches an elevation of about 6,500 feet. *Mount Athos* is an insulated hill, on a promontory of the Archipelago, but it has principally attracted notice for its conical shape, and for the numerous churches and monasteries, that adorn the picturesque declivities near its summit.

3. *Rivers.* The basin of the *Danube* includes more than a third part of Turkey in Europe. It receives numerous streams, the principal of which are the *Pruth* and the *Sereth*. The *Maritza*, which was the *Hebrus* of ancient geographers, rises in the mountains of Hæmus, and enters

the Archipelago, after a course of nearly 250 miles. The *Albanian Drino* discharges itself into the basin of the Adriatic ; and the southern branch of that river, or the *Black Drino*, receives the waters of the lake Ochrida. The *Axius*, or *Vardar* of the moderns, flows through a space of about 200 miles, into the Gulf of Salonica. *Achelous*, now the *Aspropotamos*, rises in the mountains of Pindus, and, flowing towards the south, enters the Ionian Sea. The *Peneus*, has its source near that of the Achelous, and, traversing the plain of Thessaly, pursues its course to the Archipelago. Before entering the sea, it passes the gorge or defile of *Tempe*, where the precipitous mountain cliffs of Ossa and Olympus approach each other so close, that the intervening space does not exceed 200 and sometimes 100 feet. The length of the vale is about 3 miles, and its greatest breadth $2\frac{1}{2}$.

4. *Lakes*. Turkey contains several lakes, but those in the southern part are rather of classical fame than of geographical importance. In the northern regions, they are either too small or too imperfectly known to demand description. Several occur near the mouth of the Danube, formed by the overflowing of that river, but they are destitute of picturesque beauty.

5. *Islands*. In the Archipelago are the small islands of *Thassos*, *Samothrace*, *Imbros*, and a few others, which may be considered as a part of European Turkey. None of them are of any political importance.

6. *Seas and Gulfs*. The *Ægean Sea*, or Grecian Archipelago, is remarkable for the numerous peninsulas which project into its waters from the neighboring continent, and form many bays and gulfs, and for the innumerable isles which are scattered throughout its whole extent, and which impede the navigation. The *Hellespont*, or *Strait of the Dardanelles*, connects the *Ægean Sea* with the Sea of Marmora ; the mouth of the strait is $5\frac{1}{2}$ miles wide, and is defended by castles, built in 1659. The *Sea of Marmora*, so called from its blue marble, is about 140 miles long, and in some places 50 broad. The *Thracian Bosphorus*, or *Straits of Constantinople*, the *Euxine* or *Black Sea*, the *Ionian* and the *Adriatic* seas, wash different parts of the coast. The *Gulf of Salonica* makes a deep opening into ancient Macedonia.

7. *Climate and Soil*. The climate is superior to that of almost every other European region, being uniformly salubrious and delightful. The infectious diseases which prevail in the larger cities, are rather attributable to the negligence and habits of the Turks, than to the unhealthiness of the atmosphere ; the soil is extremely fertile, and capable of yielding all the vegetable productions of the south in rich and varied profusion. Many of the valleys are composed of fine alluvial earth, the deposite of successive ages.

8. *Vegetable Productions*. Besides herbs and plants of almost every kind, this country produces, in great perfection, oranges, lemons, citrons, pomegranates, grapes, figs, almonds, olives, and other fruits. In addition to these, many drugs, not common in other parts of Europe, are produced here. Lofty forests of oak, ash, elm, &c. grow on the side of the mountains, whose summits are crowned with larches, firs, and yews.

9. *Animals*. The horses of Turkey have long been esteemed for their size, form, and spirit, but the camel is the most common beast of burden. Cattle and sheep are numerous in many districts, and the sheep of Wallachia are noted for their fine form and beautiful spiral horns. Jackals are found in some of the deserted tracts near the Bosphorus. The forests are well stocked with deer, wild boars, chamois, and hares ; there are besides a great many bears, wolves, foxes, and martens, of which the skins are exported to different parts of Europe.

10. *Minerals*. Mines of iron, lead, and copper, are found in several parts, but are neglected through the ignorance and indolence of the people. In Macedonia were anciently gold mines, which annually produced to Philip nearly 13,000,000 dollars. Alum and sulphur, perfectly pure, are met with ; and quarries of beautiful marble are abundant.

11. *Face of the Country*. Many districts are covered with rich pastures or extensive forests, but the general character of the country is mountainous. Long ranges intersect it in various directions, and their lateral branches, with several detached hills and groups, extend over many of the other districts. The northern provinces are the most level, and the southern the most hilly and diversified.

POLITICAL GEOGRAPHY.

1. *Divisions*. The country is often described by geographers under the divisions Bulgaria, Bosnia, Albania, Romelia, Macedonia, and Livadia. But by the Turks, it is divided into 4 *eyalets* or principalities, which are subdivided into *sangiacs* or banners. The *eyalets* are, 1. Si-

Estria, comprising Bulgaria; 2. Romelia or Rumeli, comprising Romelia, Macedonia, and Albania; 3. Bosnia; and 4. Dshazair, composed chiefly of the islands and Asiatic possessions. Beside these divisions, are the 3 tributary principalities of Moldavia, Wallachia, and Servia, which are rather appendages to the empire than integral parts of it. Servia has now a hereditary prince, with its own laws, and an independent administration, but pays an annual tribute, and is obliged to receive a Turkish garrison in certain posts. Moldavia and Wallachia are governed by hospodars appointed by the Sultan, and pay an annual tribute, but no Turkish troops are allowed to enter their limits. The population of these principalities is 3,700,000.

2. *Towns.* *Constantinople*, the metropolis of this extensive empire, is situated at the confluence of the Bosphorus with the Sea of Marmora, and stands on the site of the ancient Byzantium. Constantine, sensible of the immense advantages of its position, fixed his residence here, in 330, in preference to Rome. The 7 hills on which it is built, ascend as they recede from the shore, and a beautiful green hill forms the back-ground. An arm of the Bosphorus affords it an excellent harbor, with an open navigation to the Black Sea on the north, and the Mediterranean on the south. The whole circuit of the city is about 12 miles. A wall from 14 to 20 feet high, flanked with towers, and having 6 gates, runs along the side next the sea, while the ancient wall incloses the land side.



Mosque of St. Sophia.

The external appearance of Constantinople is magnificent. Palaces, mosques, seraglios, baths, bazars, domes, turrets, and spires, tower one above another. But the magic of the prospect disappears on entering the city. Here is seen nothing but narrow, crooked, dirty streets, and houses of wood, of brick, and of mud, covered with cement. The number of mosques has been stated at more than 340, most of which are built of marble, and covered with lead. The grand mosque of St. Sophia is the most renowned of the public buildings; it was formerly a Greek church, dedicated to the Holy Wisdom, or Sancta Sophia, and was built by the emperor Justinian. Its length is 270 feet, and its breadth 240. The cupola, which is lined with mosaic work, rests on pillars of marble. Many of the other mosques of more recent erection, though of less magnitude, are handsome, and display considerable taste.

The Seraglio of the Sultan is one of the peculiarities of Constantinople. It includes the harem, or apartment of the women, the

buildings inhabited by the Sultan and his court, and the public offices, which are separated from the city by a vast wall, and entered by several gates, two of which are of magnificent architecture. It presents a confused assemblage of objects, houses, domes, trees, and pavilions. Connected with many of the mosques are madrasses or schools for the higher branches of education; *imarets* or hospitals for the sick; places for the preparation and distribution of food for the poor; courts, with fountains for ablution, &c. There are also numerous monasteries for the dervishes, sophis, and other monastic orders of Mahometans. The public places are called *meidans* or plains; the most remarkable of these is the Atmeidan, or ancient hippodrome, in which the young Turks perform equestrian exercises. The baths, of which there are above 300; the *khans* or warehouses of the merchants; the caravanseries, in which are lodged the traders belonging to the caravans, &c., are also worthy of note. The principal suburbs are the Tophana, or cannon-foundry, containing the arsenal; Galata, the residence of the Christian merchants; and Pera, which contained the houses of the European diplomatic agents, until its destruction by fire, in 1831. The Fanar is a quarter of the city inhabited by the old and wealthy Greek families, hence called Fanariots. Population of the city, about 900,000. Scutari on the Asiatic side has 60,000. The strait or Bosphorus is thronged with light caïks or boats, and is remarkable for the picturesque beauty of its shores, covered with smiling villages,

palaces, kiosks, and groves ; among the villages, *Buyukdere*, in which the European ambassadors pass the summer, and *Belgrade*, are the most remarkable.

Adrianople, which was long the residence of the sultans, and is considered the second capital of the empire, is situated upon a small stream, near its confluence with the Maritza. The mosque of Selim, the immense dome of which is supported by pillars of porphyry ; the bazar, with its gallery a quarter of a mile in length, and the ancient palace of the sultans, a magnificent edifice, are its principal buildings. It has a flourishing trade and extensive manufactures, with 140,000 inhabitants.

The other principal towns of Rumelia are *Philippopoli*, with 40,000 inhabitants, who carry on a brisk trade and manufactures of silk, woolen, and cotton ; *Gallipoli*, a large commercial city, upon the Strait of the Dardanelles, with 40,000 inhabitants ; and *Sekinnia*, near the Balkan, noted for its fairs, its rose-water, and its manufacture of arms, with 20,000 inhabitants. The fortresses of *Sestos* and *Abydos*, the latter in Asia, upon the Hellespont, have acquired celebrity in poetry.

Salonica, in the southern part of Macedonia, upon a gulf of the same name, is the second city of European Turkey in commercial importance. It also has extensive manufactures of cotton, silks, carpets, morocco, &c. It contains a great number of mosques, whose domes and minarets give it a fine appearance from the sea. The Jews and Greeks are numerous here. Population, 70,000. To the southeast of Salonica is *Mount Athos*, called by the modern Greeks the Holy Mount, celebrated for its 22 convents, its 500 chapels and grottoes, inhabited by above 4,000 monks ; they export wax, images of saints, &c. *Seres*, with 30,000 inhabitants, is situated in an unhealthy spot, and is chiefly remarkable for its cotton trade.

Larissa, with 30,000 inhabitants, is the most important town of Livadia. Its manufactures of cotton, silk, morocco, and tobacco, and its extensive dye-works, contribute to render its commerce flourishing. In the neighborhood are the *Meteora*, or heights, a series of monasteries hewn out of the precipitous rocks, to which the only access is by means of baskets drawn up by ropes. *Sophia*, a large but meanly built city, has 46,000 inhabitants.

Shumla, one of the strongest fortresses in Europe, has important manufactures of copper, leather, silk, and iron. *Silistria*, upon the Danube, with 20,000 inhabitants ; *Rustshuk*, 30,000, an important manufacturing and commercial town ; *Varna*, upon the Black sea, remarkable for its fortifications and fine harbor, with 16,000 inhabitants ; *Widin*, also a strong fortress, and a commercial town, with 25,000 inhabitants ; *Nicopoli*, 10,000, and *Sistova*, with 21,000, are the chief places in *Bulgaria*.

Yanina, capital of Albania, previous to the recent wars in that district, had a population of 40,000 souls. But the rebellion of Ali Pacha in 1822, involved this city in ruin. *Suli*, capital of a rugged region of Albania, is chiefly remarkable for the heroic resistance of its inhabitants, the Suliots, to the attacks of Ali. *Arta*, 9,000 inhabitants, upon the gulf of the same name, and *Prevesa*, 8,000, upon the same gulf, are important commercial towns. *Scutari*, upon the lake of the same name, contains 20,000 inhabitants, who are engaged in the fisheries, ship-building, and the manufacturing of arms, and woolen and cotton goods. It is strongly fortified, and is one of the principal fortresses on the western frontier.

Cettina is remarkable as the chief place of the district inhabited by the Montenegrins, a warlike tribe of mountaineers, who have maintained their independence of the Turks. *Bosna-Serat*, in Bosnia, is a large city with strong military works, numerous mosques and baths, and an imperial palace. Its manufactures of arms, hardware, woolen and cotton goods, and leather, are important, and it is the centre of a brisk transit trade. Population, 70,000.

Bucharest, the capital of Wallachia, is a large and dirty town, situated in a marshy plain, on a confluent of the Danube. The streets, like those of Jassy, are not paved, but covered with planks. It contains 60 churches, several convents, &c., and has a population of 80,000. *Tergovist*, formerly a large city and the residence of the hospodar, is now on the decline, and has but 5,000 inhabitants. *Brailow*, on the Danube, formerly remarkable for its fortifications, which have been demolished, and *Craiova*, a place of considerable trade, with 8,000 inhabitants, are the other towns of Wallachia.

The ancient capital of Servia was *Semendria*, now a small town with about 12,000 inhabitants, situated on the Danube. *Belgrade*, the principal city of Servia, is one of the strongest fortresses of Europe, and is held by a Turkish garrison. It has manufactures of silk, cotton, leather, carpets, and arms, and considerable trade. Population, 30,000.

Jassy, an irregularly and meanly built town, with 27,000 inhabitants, is the capital of Molda-

via. It was almost destroyed by the Janissaries in 1821, and it suffered much again from the conflagrations of 1827. Its trade is active, but is carried on chiefly by Greeks and Armenians, and the mechanic arts are chiefly exercised by Germans.

3. *Agriculture.* Notwithstanding the fertility of the soil, agriculture is little known and less practised. In the northern provinces the pasture is luxuriant, and wheat might be raised in almost any quantity. In the southern parts rice is common. Barley and a kind of grain called *durra*, are likewise cultivated. Excellent grapes are produced, with abundance of dates and olives.

4. *Commerce.* No country possesses greater commercial advantages than European Turkey; but they are neglected through the despotism of the government and the inactivity of the people. The internal trade is almost entirely in the hands of Greeks and foreigners. The principal exports are carpets, cotton, wool, silk, tobacco, currants, raisins, wine, hides, wax, &c. The imports are chiefly cloths, coffee, sugar, spices, glass, hardware, jewelry, paper, and slaves from Georgia and the Caucasus.

5. *Manufactures.* Few articles are made in sufficient quantities to supply the home consumption, and scarcely any for exportation, except carpets. Silks are manufactured in several places, but not to any great extent.

6. *Inhabitants.* The Turks themselves do not form the chief part of the population of the Empire. The great mass of inhabitants are Greeks, Armenians, Wallachians, Jews, Albanians, Gypsies, &c. The Turks are perhaps, with regard to form and feature, the finest race of men in Europe. Their life is one of ease; their dress is loose and flowing, and without the ligatures so common in the west of Europe; their ablutions are frequent, and their women have for ages been selected for beauty from the Greeks, Circassians, and Georgians; with all these circumstances it would be strange if the Turks were not a handsome race. The Turks are well formed and have high foreheads, dark eyes, and finely cut features. Their complexion is dark; nearly a copper color. They have much gravity of demeanor, and are seldom seen to move quickly, except on horseback.

The distinctions of rank are those of office. There is no hereditary nobility except the Emirs or descendants of Mahomet, through his daughter Fatimah. They are scattered over the empire, and have such a character for simplicity, that the Turks say of a simpleton, "he is of the Emirs." This deterioration of intellect in the Emirs is perhaps occasioned by intermarrying only in their own lineage. They wear Mahomet's color, green, which it is not lawful for others to wear, and Christians are never suffered to assume it. The daughter of a foreign consul was shot by a Mussulman, while she was inadvertently riding in a green dress, and the murderer was not thought to be a fanatic. A blow to an Emir is punished by cutting off the hand.

7. *Dress.* The dress of the Turks is not liable to sudden change; it is hardly liable to innovation. It is, however, considerably different from the prints in books of travels in Turkey a hundred years ago. On the head is a turban, or a cap surrounded by many folds of cloth. The form and size are various, and denote the rank of the wearer. The Turks abominate hats, and the populace nail them to the doors of those whom they stigmatize as traitors. The Turks never uncover their heads, and the ambassadors wear their hats before the Sultan. The head is shaven close, except a single long tuft left on the crown, by which the devout Moslem supposes he will be lifted into paradise. The Armenians, Jews, and Greeks are distinguished by the colors of their hats and slippers, and it is not permitted them to wear any but the stated color.



Turk.

The Turkish dress is loose and flowing; the outward garment is a long and loose robe. Underneath is a wide vest bound with a sash; loose drawers, and a shirt with wide sleeves, without wristbands. On the feet are worn slippers, which on entering a house are left at the door. This is the usual dress, though many classes have a different one. An office is often denoted by the dress. There are sumptuary laws regulating dress; which is, however, still very rich especially on the great religious festivals. The present Sultan has reduced the dress somewhat

towards the European standard. The Emirs, or descendants of the prophet, dress in green. The dress of the females has a general resemblance to that of the men; though when the head is covered, a stiff cap is worn instead of a turban. When abroad the women are so closely veiled, that their nearest friends cannot recognise them; and the veil perhaps encourages intrigue as much as it defends modesty. The hair is worn long; it is plaited in embroidered gauze about the head, and then falls in tresses to the waist. It is fastened there with many little knobs of gold. The females are always in full dress, and their hair loaded with ornaments and sparkling with diamonds. The eyelids are tinged with a dark substance, which adds to the effect of the long eyelashes by relieving the brilliancy of the eye.

8. *Languages.* The Turkish is a dialect of the language of most of the Nomade tribes. Its rules are simple, and it has flexibility and harmony. It is written in the Arabic character. There are about 30,000 works in this language, chiefly commentaries on the Koran. Besides this, there are the Italian, Greek, Armenian, Slavonic, and other languages, extensively used in Turkey. The Italian, however, is the language of commerce, though so much mixed with foreign words, that it is rather the *lingua franca*. In Wallachia, once a Roman province, there has been so little communication with foreigners, that the language remains perhaps as much like the Latin as it was under the Romans. It was probably never, in its most refined state, the language of the Augustan age at Rome.*

9. *Manner of Building.* The Turkish cities have all a splendid appearance, when seen at a distance, but the delusion vanishes when they are entered. There are many towers, domes, and minarets, and these seen over the line of walls always make an imposing show. But the individual houses have neither elegance nor comfort; and many of them are slightly built, of perishable materials. The more substantial kind have verandas and courts, and on the flat roofs the inhabitants sleep in certain seasons. A fire rages in a Turkish city. The general apathy of the people, the want of concert or organization, and their creed of predestination, are so many allies to the flame, which is seldom checked at Constantinople till it lacks fuel by reaching an open place, or till a space is cleared by the removal of houses. This is not difficult, as the buildings are small. The houses have little exterior ornament, for in Turkey it is not safe to make a display of wealth. The interior is finished with much finery but little taste. The rooms have carpets, and there is a divan, or raised step, or platform, running round them, which is covered with cushions, that make the only seats of the Turks, on which they sit cross-legged like tailors. Sometimes several cushions are piled together and form a sort of raised couch. There are no tables, but trays are used, which are placed upon the floor. There are no fire-places, and though it is not rare, that persons are killed by the vapor of charcoal, the rooms are warmed by nothing else.

Architecture is an art founded on necessity, and where this is neglected, the ornamental arts can have no encouragement. Yet perhaps any other people than the Turks would in Turkey have produced some monuments of good architecture. Asia Minor and Syria have more numerous and imposing remains of ancient art, than are to be found in Europe. The Turk views them with his usual apathy; and so much above his estimation of human means do they seem, that he refers their erection to the agency of spirits, summoned by Solomon; yet he feels no admiration and attempts no imitation.

10. *Food and Drink.* The Turks are temperate in their food, of which rice forms the principal share. Sometimes it is boiled with mutton, or fowl, when it is called *pilau*. The fowl is boiled so much, that the master of the house easily separates the joints with his fingers, which is his mode of carving. Curds, cheese, youart, and other preparations of milk are common, but there is no butter. Many courses are often brought in at meals, one after the other. Each person has 2 spoons and a flat cake of bread, and all help themselves from the common dish. This has ever been the eastern custom, and the Saviour indicated his betrayer as the one that dipped his hand with him in the dish. Coffee is universal throughout the East, in an Arab tent as well as the castle of a Pashaw. It is a strong, turbid decoction, drank without sugar or milk. It is handed to every visitor whom the host would treat with common civility. Among the Arabs and other tribes, that adopt their customs, it is the highest pledge of confidence to eat together. It is seldom violated, either for interest or revenge, the

* Dr. Walsh, on arriving at an inn, shrunk from a person, who approached him with a tumor, thinking it to be the plague; when the agent of the post said to the man, *sepone*, he stood aside; to Walsh he said, *Tumor non est pesti, domnee, est gunsha*. On inquiring if there were many dwarfs, as several were in sight, the traveler

was answered, *sun multi innumerabile*. *Non soror, esti uxor*, was the reply of the host when asked if a female was his sister; *ago tibi gratias Domnee*, was the manner of returning acknowledgments, and *valeta* was the word of adieu.

*Turkish Women making Bread.**Sellers of Vegetables.*

strongest motives of a barbarian. Travelers, who put themselves under an Arab guide, first partake of food with him, before they trust him in the desert.

Wine, which was interdicted by Mahomet, is now freely drank, except by the most fanatic and austere, and its use is becoming more general still. After dinner, ladies often take several small glasses of *rosoglio*, a distilled cordial. The pipe, however, affords the chief pleasure, or rather employment, to a Turk. The use of it is universal and almost uninterrupted. On horseback, riding, sitting, walking, reclining, or laboring at his art, it is a constant companion. It is one of the few things on which the Turks display much splendor or taste. It is always sumptuous, with those who can afford it. The tube is 6 or 7 feet in length, and the bowl is richly ornamented. The bowl is sometimes supported on wheels, that, in moving it, the indolence of the smoker may not be violated.

In a life as void of incident as that of a Turk, some there are who seek the excitement of opium. There are coffee-houses for these *Theriakis*, or opium-eaters, where they may be seen sitting on benches before the door, absorbed in their celestial visions. The composition used at Constantinople to produce the excitement, is made of the pistils of the hemp blossom, honey, powdered cloves, nutmeg, and saffron. The dose varies from 3 grains to a drachm, and the effect lasts 4 or 5 hours. The gestures of men under the operation of the drug are frightful, and their eyes have an unnatural wildness and brilliancy. The *Theriakis* seldom live beyond 30, if they begin to use the drug young, and their moral and physical debility is deplorable. They are not, however, very numerous.

11. *Diseases.* Fevers are common in the greater part of Turkey, and in Wallachia, goitres and other alpine diseases. Leprosy is often found, and ophthalmia is frequent. It is the plague, however, that is the bane of the cities. This terrible destroyer has generally baffled all human skill, both in its natural climates, and in others to which it has been imported. It is contagious, and it has been supposed also to be infectious. The Turkish mode of life seems devised, especially to perpetuate the plague, the virulence of which is much aggravated by putrefying animal and vegetable substances. The streets have no scavengers; they are receptacles of filth, and whatever animal dies, is left to taint the air, in a burning climate. The science of medicine is unknown in Turkey, and a belief in predestination, with the general indifference of the Turks to all things but ease, sufficiently account for the unchecked ravages of the plague. The disease commonly runs its course in 3 days, and the patient may have his system thoroughly invaded before he is sensible of the presence of the disease; generally, however, the glands are sore, and there are buboes on the groin. When these break and are kept open, the patient recovers; if they remain

hard, the disease strikes upon the inward parts, and he dies. The general custom has been to reduce the inflammation by bleeding and otherwise; but Dr. Madden has lately been eminently successful in the opposite course. He supposed, that nature should be assisted in the formation of the sores, and gave large quantities of brandy, even in extreme cases, with the greatest success. With this treatment 75 in 100 recovered.

12. *Traveling.* In European Turkey, posts are established, but the horses are very inferior, and they are to be had only on the chief routes. It is a service of difficulty, endurance, and danger to reach Constantinople by land from Vienna. In leaving Austria, the traveler's hardships and perils are increased; and his journey is always among those who have little respect for his life or property. There are but two reasons that lead Europeans to travel in this country, curiosity or gain. But the gratifications to the former are so numerous, that many adventurers have explored the parts where the danger and privation are greatest. Foreigners, who do not travel in parties, generally go under the direction of a guide or attendant on horseback. The roads are passable for rude carriages. The only accommodation that may be generally relied upon is shelter, though this is not always to be had. There are, however, inns, or caravanserais, at which may be had a shelter like that of a stable, with a provision of chopped straw for the horses. It is seldom that they are furnished with food. It is well for the European traveler to supply himself with a Janissary cloak, a thick garment of goat's or camel's hair, and, if he is in haste, to put himself under the care of one of the Tartar couriers, who are familiar with the route. It will conduce somewhat to his comfort, also, to assume a dress of the country; and the greater the poverty it indicates, the less is the danger from robbers, or the vexation from extortioners. There is danger from robbers in many of the less settled parts of Turkey, and there is extortion everywhere. It is to be lamented, that countries, which it would otherwise be so agreeable to visit, and that have many interesting antiquities, should be so difficult to explore. Most of these dangers have, indeed, disappeared of late years; still, there is little comfort or pleasure in traveling here.

13. *Character, Manners, and Customs.* In describing national character, it is of the Turks only, that it is safe to speak in very precise terms. The character of a whole people is seldom so uniform, that it may be described in a few words; yet almost all travelers in Turkey concur in describing the Turks as ignorant, fanatic, arrogant, and sanguinary; treacherous to enemies, and perfidious to friends. The ignorance of a Turk is more than negative; it is positive hostility to knowledge. Those who know more languages than one, often conceal the knowledge, to avoid the disgrace attached to it. These, however, are few, and, until the Greek Revolution, none but Greeks were found capable of performing the duties of dragoman, or diplomatic interpreter. With this passion for ignorance, it is not strange, that the Turks are as little enlightened as they were before they "encamped" in Europe.* Wherever the Turks have authority, commerce and manufactures have few followers; art and science languish, the very earth seems to be blasted, and agriculture itself has hardly an existence. The arrogance and fanaticism of the Turks are at least equal to their ignorance. Their creed inculcates no toleration for infidels, and it prefers extermination to conversion. The best epithet bestowed upon a Christian, is *dog*; and it is sometimes changed for other terms of reproach. A Janissary attendant upon foreigners, used to be called a *hog-driver*; and when a European ambassador communicated to the grand vizier the marriage of the imperial family that he represented, he received for answer the gracious assurance, that the Sublime Porte did not concern itself in the union of one hog with another. Madden, who had lately the best opportunities for estimating the Turks, fortifies our description in almost every particular. He says, that he never

* "A Turk, however, in the presence of a Frank, is willing to receive credit for knowledge. This day, at noon, the author having found an excellent sextant in the ward-room, which had been taken from a French prisoner, made an observation of the ship's latitude; and calculating, as well as he was able, the course she had made, upon a chart belonging to one of the Ragusans, ascertained her position, lat. 34° 50', French long. 48°. As the pilot on board, being out of sight of land, knew nothing of her situation, he sent the chart, with a respectful message to the captain, telling him the ship's latitude, and her probable distance from Rhodes, Finica Bay, Cyprus, &c. Upon this, he was summoned, with the Ragusan, into the cabin, and immediately asked, how he could pretend to know where the ship then was? Having stated

that he had ascertained this by means of a sextant found in a drawer of the ward-room, and a calculation of the ship's course, according to the common observations daily made on board English and other ships, the Ragusan was despatched to bring the thing called *sextant* instantly before the captain. This instrument being altogether incomprehensible to him, he contented himself with viewing it in every direction, except that in which it might be used; and, stroking his long beard, said to the Ragusan, 'Thus it is always, with these poor *djovors* (infidels), they can make nothing out without some peeping contrivance of this kind; now we Turks, require no sextans, — we, (pointing with his finger to his forehead,) we have our *sextans* here.' — *Clarke's Travels.*

passed through a bazar, where the men did not set the dogs upon him, the boys pelt him with stones, the women spit upon him, and all curse him and call him *caffre*.

No people have such indifference to shedding blood ; the streets of Constantinople show many dead bodies, and others are often seen floating in the Bosphorus. At the massacre of the Janissaries, when 20,000 were enclosed in their quarters and killed, and when the report of the cannon shook the air at Pera, it was as quiet there as if the firing was only to celebrate a victory. No man was disturbed, or omitted his usual business. A late traveler with some friends, came, unawares, across a road, over which a company of artillery were exercising at a target. They were seen by the Turks, but the firing was continued, and the balls passed near to the travelers. A Turk regards the life of a dog more than that of a man. This is from respect to Quithmer, the dog of the seven sleepers, whom they believe slipped into Paradise, where he now presides over letters missive, and a Mussulman writes Quithmer on the corner of his letter, after cutting a piece from it, to show the imperfection of all human works. The Turks are generally armed, and this, in a country where passion is checked by so few restraints of law, leads to many murders. Any person of a different creed holds his life on the forbearance of a Turk.

The perfidy of the Turks is manifested in their public, as well as private relations. An officer, whose death is determined upon, is sent to his government, with every demonstration of favor, but an executioner is despatched with a party, to kill him on the way, or on his arrival. Sometimes the executioner goes alone, and when, after a long course of dissimulation, he is at last admitted to the presence of his suspicious victim, he stabs him in the divan, and takes from his bosom the Sultan's *firman* or order, to shield him from the vengeance of the attendants. Sometimes, however, the wary officer searches all suspected visitors, and, on finding the order, sends back to the Sultan his messenger's head. Several of these messengers have been sent to the Pacha of Egypt, but none have ever returned. Dr. Madden saw, in the course of his short practice, many cases of poisoning ; a most formidable number, if taken as a proportion to the whole people, and the best proof of general perfidy and treachery.

It is evident, that all national character is the result of circumstances, but chiefly of civil and religious institutions ; and to judge from the result, these are nowhere worse than in Turkey. But in describing the Turks by their faults, it should not be forgotten, that they have one national virtue truly singular. Byron's description of an individual has a wider application. "One virtue, and a thousand crimes," was not a personal peculiarity of the corsair ; it is almost a national trait, for the Turks are distinguished for honesty. Their words are security as good as bonds in other countries. Children are sent to make purchases at shops and are seldom wronged ; the shops are secured in the master's absence with a string. It has been said, however, that the honesty of the Turks is not the offspring of justice, a principle for which they have no reverence in the other relations of life. A late traveler supposes it to be a consequence of the contempt in which the Greeks were held, who were so fraudulent in their dealings, that the Turks would take an opposite course from spite, and form a character for honesty on the foundation of a bad motive. This, however, is to consider it too curiously ; and the Turks should be allowed the full credit of national honesty in their commercial dealings, though rapacious and unjust in their political and official.

The gravity of the Turks is in some degree a consequence of indolence ; and late travelers represent them as cheerful in their private circle ; Dr. Madden often heard peals of laughter at night from the women's apartments. A Turkish house is a castle of indolence, images of rest, of "quiet and of sleep profound," invade the mind at the threshold. The murmur of fountains soothes the ear, some simple and monotonous tune is sounded for hours to compose the master, the pipe is never from his hand, and he is seldom so happy as when all these means have placed him in a state of reverie, in which, without being asleep, he can yet live without the labor of thought, careless of the future, and forgetful of the present and the past. In all the household arrangements and decorations, the gratification of the senses is more studied than that of the imagination. There are no pictures, statues, or incitements to thought ; everything tends to repose.

The Turks are said to be *encamped* in Europe, to show the insecurity of the tenure by which they hold their conquest, and their reluctance to follow any European customs. The barber pushes the razor from him in shaving, the carpenter draws the saw towards him, and sits while at work, the mason is seated while laying stones, the scribe writes from right to left, and

the houses are finished first at the top. The upper story is often inhabited, while there is, of the lower, nothing but the frame.

The polygamy and other indulgences permitted by the Koran, tend to the utter debasement of the Turks. They are attended with various circumstances, which mark a very peculiar and degraded state of society. For instance, the Kiskar Aga, or chief of the black eunuchs, is an important officer, not only of the household, but of the state. He is by nature ferocious, for ugliness and ferocity are the best recommendations to his office. Mutes, or the deaf and dumb, are sought for by Pachas, as acceptable presents to the Sultan; there are 40 of these servants at the seraglio, who can see, but not tell; suffer, and not complain. Dwarfs and deformed persons are also attached to the court, as in various eastern countries. Caliph Vathek is represented to have been met and welcomed on a visit in the East by a "superb corps of cripples." It sometimes forms the amusement of the great to vex these poor beings. If a mute has the good fortune to be at the same time, deformed, and a eunuch, his welfare is established; and he becomes a favorite with those whose favor is fortune. The Kiskar Aga is often a formidable enemy to the grand vizier; he heads the plots of the seraglio, and naturally undermines the credit of the vizier, that he may himself receive more bribes from applicants for offices, or pardons; his situation gives him great power to serve his friends or punish his enemies.

The seclusion of the harems or women's apartments is never invaded; the great have eunuchs, but the other classes trust to the security of locks, and the custom of seclusion. The harems are generally fitted up with some attempts at splendor, for the poorest Turk seems to have some hidden means of supply; living at a rate of expenditure far beyond his ostensible income. The overplus is made up by extortion upon the industrious classes, the Jews, Armenians, Greeks, and Franks.

Madden, in his capacity of physician, had an opportunity to visit the market for female slaves; a deplorable consequence of the state of society in Turkey. This is a horrid slavery, to which all other is as freedom. The young and the beautiful Greeks, Circassians, and others, are sold to the highest bidder, and their beauty becomes the measure of their value. A Negress sells for about 80 dollars, an Abyssinian, for 150, and a Greek or Georgian, for 300, or more.

14. *Amusements.* The Turks are too grave and indolent to have many amusements. Games of chance are forbidden in the Koran, but chess is common. The jereed, or exercise on horseback with lances, is pursued with great adroitness and skill. Horsemen scour the plain and throw the lance while riding at full speed, and catch it from the ground without checking the horse. The lances are thrown with great precision, and the mastery of the rider over his horse is perfect; both seem to have but one will. The manner in which the Turks wrestle is to grasp the waist, while one strives to lift the other from the ground and throw him on his back; a feat often accompanied by broken bones.

The baths form the chief amusement, especially of the females, for whom separate ones are provided; or the common baths are devoted to them on particular days, when none of the other sex approach. The females go with a slave or two, and pass many hours in each other's society. The baths are here what the operas are in western Europe. Bathing is the luxury of a warm climate, but, after the Turkish fashion, it is of no easy endurance to a novice. The bather undresses in an outward room, and enters an inner one with an atmosphere of steam; he can hardly draw his breath, till a profuse perspiration comes to his relief. He seats himself on a slippery board, at the side of a fountain, while an attendant rubs him with a glove of horse hair. This process is so severe; that the skin of a new beginner, or foreigner, sometimes follows the glove. After this comes the shampooing, in which the body is turned over as though it were dead, the joints cracked, and the whole surface thumped and kneaded. The bath is exceedingly refreshing; it renders the joints supple, and removes all obstruction from the pores.

15. *Education.* To read the Koran is the principal end of education in Turkey, and even to do this is by no means universal. All religion, morals, and law, are supposed to be found in the Koran; and all education begins and ends with this. To be able to repeat many chapters is to have a character both for piety and learning. A Turkish female, that can read, is hardly to be found; and is considered a miracle of knowledge. A newspaper is printed at Constantinople, under the direction of the Sultan, but there are few books of any kind in the language, that contain useful knowledge. The Turkish books are chiefly commentaries on the Koran.

16. *State of the Arts, Science, and Literature.* The Turks have no taste for the ornamental arts, and have attained to no excellence in the useful ones ; their manufacture of swords is the only one in which they have equaled the other nations of Europe. The religious creed proscribes the imitative arts ; and the Turks must, moreover, lack all taste for them, or it would have been excited by the remains of antiquity in Greece, Constantinople, and Asia Minor. But every Turk is an Attila. The arts, then, may be said to be unknown in Turkey ; or their highest efforts are to ornament a pipe, or the trappings of a horse, in which, if in anything, a Turk is sumptuous. The Turks have done nothing for science ; though vaccination came to the rest of Europe from Turkey. But it was accident, to which it owed its origin, and not to science. There are about 30,000 volumes of Turkish books, which are chiefly commentaries on the Koran, with some poetry and tales.

The physicians in Turkey rely as much upon charms as upon medicines. When neither charms nor medicines avail, the friends collect round the dying man, assure him of the blissful reward that awaits him as a believer, and intimate to him, that it is proper to enter paradise with a cheerful countenance. A Frank physician, however, has the greatest credit with the Turks, and there are many of them settled in the cities. They visit even the harems, forbidden to all others, though the pulse is often submitted to them covered with gauze. Dr. Madden, who has given an excellent account of the Turks, had, as a physician, frequent opportunities to see them in their domestic circle. Before he could expect to be much employed, however, he followed the custom of the country, in hiring an attendant, a sort of mountebank, to go with him to the coffee-houses, eulogize his skill, and recount his cures, in no measured language. In fact, the more surprising and incredible the cure related, the more readily was it believed. There is no other way than this for a Frank physician to be called to practice in Constantinople. The pulse only is offered to the physician ; and from this alone, the Turks expect that he will know the whole nature of the disease ; their backwardness in giving any other information, often endangers their lives.

17. *Religion.* The religion is chiefly the Mahometan, the Christian, and the Jewish. The Christian is divided into the Armenian, the Catholic, and the Greek churches. Toleration, however, is no part of the Mahometan religion, which prevails not only in Turkey in Europe, but in a vast portion of Asia and Africa. It is so much blended with various points of Christianity and Judaism, that it has sometimes been called a Christian heresy. The founder, Mahomet, whom his followers call the Prophet, was born at Mecca, A. D. 569, and it is held by his believers, that he was foretold by Christ, as the *paraclyte*, or Renowned ; and that the word *paraclete*, or Comforter, is a perversion of the text. In his youth, he was employed as a traveling merchant and as a soldier. His fortunes and influence were established by a marriage with Cadijah, a rich widow. By her he had eight children, one of whom only survived him, his daughter Fatimah, from whom the Emirs claim a descent. During the life of Cadijah, he had no other wife. It was not until the age of 40, that Mahomet pretended to be commissioned to reveal a new religion. At first, he had the fate of better prophets, the incredulity of his countrymen ; and his very wife treated him for a time as a dreamer. By degrees, however, a few influential men became his followers, and it was soon after extensively believed, that the Angel Gabriel was the messenger who communicated the detached parts of the Koran ; for this pretended oracle was produced at different times, and to suit various occasions. Mahomet had thus a ready way to silence all cavilers, and even to rebuke the love of finery in his wives. A new revelation, touching the individual case, was always at hand, and the mandate of to-day might be modified or repealed by that of to-morrow.

After the death of Cadijah, the wives of Mahomet became numerous and somewhat troublesome to guide. They were from 15 to 21 in number, for so far the various authorities agree ; the best beloved of these, Ayesha, was suspected of infidelity, but acquitted by a ready chapter of the Koran. The prophet finding his affections turned towards the wife of Zeid, one of his best servants and earliest converts, found an immediate resource in another chapter, and she became his wife. Another of his wives was a Jewess, who complained that her lineage was contemned by her companions, and to her he said, "Canst thou not boast Aaron is my father, Moses is my uncle, and Mahomet is my husband !" He usurped a posthumous authority, and, with a spirit of mean jealousy, interdicted his wives from marrying after his death. He ordained in the Koran, that visitors should not look upon his wives ; but rather speak to them behind a curtain ; and he affirmed, "that it would be a grievous thing in the sight of God," for any one to "marry his wives after him forever."

The Koran was indeed a ready convenience to Mahomet. If a visiter stayed too long, the community was better advised in a chapter. "O, true believers," says the Koran, "enter not into the houses of the prophet, without waiting his convenient time; but when ye are invited, then enter. And when ye shall have eaten, disperse yourselves, and stay not to enter into familiar discourse, for this incommodeth the prophet. He is ashamed to bid you depart, but God is not ashamed of the truth."

Persecution followed partial success, and Mahomet was obliged to retire from Mecca. This flight, called in the Arabic tongue *Hajira*, has become the grand era of all Mahometan nations. It answers to the year A. D. 622. At Medina, the fugitive became a monarch, and found an army at his command. His doctrines varied with his fortunes, and, with force at his command, his religion was now to be extended by violence, though hitherto he had employed only persuasion. But he was now a legislator, judge, prophet, priest, and military chief. All the chapters of the Koran were devised under peculiar circumstances, and for certain ends. The most of these that were made at Medina, where the impostor had power to aid his fraud, are intolerant and sanguinary. This spirit has generally animated his followers, and their principle's, "the Koran, death, or tribute." Renegades, however, are distrusted and despised.

The wars that followed, were attended with various success; but, in the end, consolidated the power of Mahomet. He died in his 63d year, of the effects of poison, which had been concealed in a shoulder of mutton. On this occasion, some of his fanatic followers believe in a miracle, or that the mutton spoke to warn him. The Mahometans, however, do not generally believe in any miracles, but the great standing one of the Koran; and on this, Mahomet himself, when questioned as to his miraculous commission, chiefly relied. The chief doctrines of the Koran are contained in the confession of faith, "There is no God but God, and Mahomet is his prophet." The unity of the Supreme was the more insisted on, that the creed might the more differ from the trinity of the Christians. Providence and predestination, universal dissolution, and the death of even Azrael, the angel of death, a resurrection, judgment, the intercession of Mahomet, purgatory, hell, and paradise, are parts of the Mahometan creed. Paradise is painted with the profusion of all that delights the oriental in this life; with gardens, palaces, fountains, and *houries*, or beautiful females, whose only study is to reward the pious believer. It is indeed but a bad creed, that would crown a life of intolerance and violence with a martyr's death, and a sensual paradise.* It is a vulgar error, that Mahomet taught the exclusion of the souls of females from paradise. The reverse is held in the Koran, nor is the exclusion believed in Turkey. The Koran corresponds with the Old Testament in the account of the creation, the fall, the deluge, the deliverance of Noah, the call of Abraham, the histories of Isaac, Ishmael, Jacob, and the patriarchs, the selection of the Jews as a chosen people, the office and miracles of Moses, the inspiration of the prophets and psalmists, and in many other particulars. It recognises Christ as the Messiah of the Jews, but all these truths are mixed up with fables and puerilities.

The principal commandments of the law are to pray five times a day, to fast at *Ramazan*, to give alms, to make a pilgrimage to Mecca, and to perform ablutions. The minor requisitions are circumcision, abstinence from swine's flesh, or the flesh of any animal strangled. There are two sects, the followers of Ali, and the followers of Omar, as lieutenant of the prophet. The Persians are of the sect of Ali. There are divers religious orders, of which the principal are 32. There are a great many mendicants and itinerant dervises, who have many moun-

"They shall repose on couches, the linings whereof shall be of thick silk, interwoven with gold; and the fruit of the two gardens shall be near at hand together. Therein shall receive them beauteous damsels, refraining their eyes from beholding any besides their spouses, having complexions like rubies and pearls. Besides these, there shall be two other gardens, that shall be dressed in eternal verdure. In each of them shall be two fountains, pouring forth plenty of water. In each of them shall be fruits, and palm-trees, and pomegranates. Therein shall be agreeable and beauteous damsels, having fine black eyes, and kept in pavilions from public view, whom no man shall have dishonored before their predestined spouses, nor any genius." "They shall dwell in gardens of delight, reposing on couches adorned with gold and precious stones; sitting opposite to one another thereon. Youths, which shall continue in their bloom forever, shall go round about to attend them, with goblets and beakers, and

a cup of flowing wine; their heads shall not ache by drinking the same, neither shall their reason be disturbed." "Upon them shall be garments of fine green silk and of brocades, and they shall be adorned with bracelets of silver, and their Lord shall give them to drink of a most pure liquor, — a cup of wine mixed with the water of *Zenjebil*, a fountain in paradise named *Salmabil*." "But those who believe and do that which is right, we will bring into gardens watered by rivers, therein shall they remain for ever, and therein shall they enjoy wives free from all infirmities; and we will lead them into perpetual abodes." "For those who fear their Lord, will be prepared high apartments in paradise, over which shall be other apartments built; and rivers shall run beneath them." "But for the pious is prepared a place of bliss; gardens planted with trees, and vineyards, and damsels of equal age with themselves, and a full cup." — *Koran*.

bank tricks, which they practise adroitly. The Turks have a great respect for all things connected with Mahomet, and their reverence for the Koran is extreme. They will pick up a piece of paper in the street, to see if it be not a fragment of the Koran. The sacred camel, that leads the pilgrimage to Mecca, is a descendant of Mahomet's camel; and the great standard of the empire, seldom unfurled, and a sight of which is considered equal to a pilgrimage, is no less a thing than the prophet's breeches.

The Koran prescribes the attitudes of prayer, and the time which the Muezzin calls from the minaret of the mosque, for there are no bells. "Come to prayer," cries he in the morning, "there is no God but God. Come to prayers; prayer is better than sleep." At noon he adds, "prayer is better than food." The Mussulmans, when they pray, turn towards Mecca; and they are much absorbed in their prayers, praying with great fervor and awe. The fasts are strictly kept, and in that of Ramezan, it is not lawful to taste so much as a drop of water during the day, from one new moon to another. During this fast, it is no time to solicit a favor from the devout. After the fast, comes the feast of Bairam, which is carried to great excess. The mosques are generally supported by bequests of money given for religious purposes, and this is one of the few safe dispositions of it in Turkey. Wells, fountains, inns, hospitals, &c. are founded in the same way. The Turks are strict in rendering alms, which are annually about $2\frac{1}{2}$ per cent on their property.

Marriages in Turkey are mere contracts, made chiefly by the parents and friends of the parties. Two children are betrothed at a tender age, sometimes at 3 or 4, and when the engagement is completed, at mature years, the bride is carried in a procession to the husband's house. Divorces are had almost at the will of the husband; for, though he have no cause, he can find witnesses at every coffee-house; as no crime is more frequent, or more lightly punished in Turkey, than perjury. The wife's portion is retained by herself, after divorce. The usual allowance, called in this country pin-money, is known in Turkey as slipper-money. After divorce, however, it is not permitted to the parties to come together again, till the wife has lived with another man. Courtship is much curtailed in Turkey. The sexes never meet in society, and to salute a lady in the street, is the height of rudeness. Politeness prescribes, that a gentleman should look the other way. A flower dropped in a lady's path, is an intimation of affection; and the female pedler, or other emissary, may carry the swain in return, an embroidered handkerchief; but there is no correspondence, no *billets-doux* but those of flowers. Flowers have an amatory and poetical meaning, sufficient to express the usual sentiments of love and hope, suspense and favor. It is not, however, because it is poetical, that this language of flowers is in Turkey that of love, for to Turkish ladies a written billet would be an unfathomable mystery; to read and write is no part of their education; poetry and romance they have none except in feeling.

"No bustling Botherbys have they, to show 'em
That charming passage in the last new poem."

The Turks bury their dead naked, and place them with their faces towards Mecca. The burying grounds are shaded with cypress trees, and neatly kept; it is common to see females in them placing flowers around the graves. A turban, rudely carved on a stone, is placed over the grave of a male, and a vase over that of a female. On the tombs of unmarried females, instead of the vase is a rose.

18. *Government.* The form of government is a pure, unmixed despotism, and there is nothing to stay the authority of the Sultan but public opinion, a feeble interposition in Turkey. The monarchy is hereditary, though the sultans are sometimes deposed. They are not crowned, but girded with the sword of Mahomet; and it is to their capacity of successors to the prophet, that they owe the most of their power. It is considered martyrdom to die by the Sultan's command, and utterly disgraceful to fly from the mandate of death. On such occasions a subject's very wives have often turned against him. The sultans have ever had in a great degree the Turkish prodigality of life; it is an established principle in public opinion, that they may take fourteen lives daily. The males, who are by collateral birth near the throne, are either murdered or imprisoned. The sultana valide, or mother of the Sultan, has generally much influence in the state. The Sultan is called by his subjects, in the way of rebuke, the "son of a slave"; and his education gives him a slave's vices, before he attains to a master's power. His palace is, at the same time, a prison and a shambles; and no place in this upper world has been stained with more violence and injustice than the seraglio; there is always some plot here to supplant a favorite, and the *dénouement* of every plot is blood; for in

Turkey, Death stands at the right hand of power, and many officers in resigning their places yield up also their heads. The very terms of endearment used by the females of the Grand Seigneur express his formidable, rather than his amiable qualities; they call him their *Lion*. As the observances of despotism are kept up in the seraglio, all is prostration and fear; and even those who feel no awe, pretend it by confusion and hesitation of speech, when addressing the monarch. All attendants walk quickly, as a slow gait is appropriated to majesty. The late Sultan was one of the few monarchs, who ever ruled the Turks, that was bent upon improving them, and he has done something, though much remains to be done.

Some of the Sultan's titles are, "Son of Mahomet, King above all Kings, Seed of the Great Alexander, Lord of the Tree of Life and of the River Fliskey, Prior of the Earthly Paradise, Commander of all things that are to be commanded, Centre of Victory, Shadow of God." The court is called the Sublime Porte, and all decrees or treaties are dated "from our stirrup." The Divan, or Council of State, is composed of the Ministers of the Interior, Exterior, and Finance. The government of the provinces is delegated to pachas, waivodes, and other officers. The military ensigns are horsetails, and the dignity of the pachas is measured by the number they are permitted to assume, three being the most honorable. All offices are sold; the incumbents give to the treasury a certain sum, and indemnify themselves by extorting from the subjects placed under them. The pachas divide their territories into districts, and dispose of them as they have bought their pachalics; so that the circle of extortion is complete. There is no security for property, and the last *para* is often rendered up under the *bastinado*. To serve the state, is a principle unknown among Turkish officers; to serve themselves, with little choice of means, is the practice. They indemnify themselves for their expense and brief authority, by all the wealth that their rapacity can collect. They live upon a dangerous post; and history has recorded that 33 viziers have been executed at the command of their masters. The inferior officers are too numerous to be recorded.

19. *Laws.* The Turkish laws are contained principally in the Koran and the commentaries of sages. They are not generally unjust, but the administration of them is utterly corrupt,* and the judge decides in favor of the party which propitiates him by the greatest bribe. In other countries, it is common to retain the lawyer; in Turkey it is more necessary to retain the judge. Everything is venal; the complaint of the informer, the testimony of the witness, and the sentence of the judge. Property is safe only when it is concealed. The edicts of the Sultan have the force of laws, and it is safe for him to outrage all things but custom, the only protection of those who live under a despotism. To custom the Sultan must himself submit; and it would cost him his crown to invade generally the private apartments of his subjects. He has the property of all those who die in his service, a tax of 10 per cent upon all inherited property, and as many confiscations as he is pleased to make executions. Some of the laws or rather municipal regulations are, that nothing shall be charged for the novelty or fashion of an article, and that even the early fruit shall be sold as low as the late. A baker, who defrauds in the quantity of bread, is nailed to his door by the ears for 24 hours; a law which, says a recent traveler, if introduced into all civilized countries would raise the price of nails. A hole is cut in the door for his head, and both ears are nailed to the board. The *bastinado* is the common punishment for the lighter crimes; it is inflicted by hard blows on the soles of the feet, or by beating with a cudgel, the ribs, stomach, and loins. The *bastinado* is the common method of collecting the taxes in provinces. Petty larceny is punished in the same way, but this is in

* "A remarkable cause was tried while we were in Cos; and a statement of the circumstance on which it was founded will serve to exhibit a very singular part of the Mahometan law; namely, that which relates to '*homicide by implication*.' An instance of a similar nature was before noticed, when it was related, that the Capudan Pasha reasoned with the people of Samos upon the propriety of their paying for a Turkish frigate which was wrecked upon their territory; 'because the accident would not have happened unless their island had been in the way.' This was mentioned as a characteristic feature of Turkish justice, and so it really was; that is to say, it was a sophisticated application of a principle rigidly founded upon the *fifth species of homicide*, according to the Mahometan law; or '*homicide by an intermediate cause*,' which is strictly the name it bears. The case which occurred at Cos fell more immediately under the cognizance of this law. It was as follows. A young man desperately in love with a girl

of Stanchio, eagerly sought to marry her; but his proposals were rejected. In consequence of his disappointment he bought some poison and destroyed himself. The Turkish police instantly arrested the father of the young woman, as the cause, *by implication*, of the man's death; under the *fifth species of homicide*, he became, therefore, amenable for this act of suicide. When the case came before the magistrate, it was urged literally by the accusers, that '*If he, the accused, had not had a daughter, the deceased would not have fallen in love; consequently, he would not have been disappointed; consequently, he would not have swallowed poison; consequently, he would not have died; — but he, the accused, had a daughter; and the deceased had fallen in love; and had been disappointed; and had swallowed poison; and had died.*' Upon all these counts he was called upon to pay the price of the young man's life; and this, being fixed at the sum of 80 piastres, was accordingly exacted." — *Clarke's Travels*.

Turkey, as in Spain, a rare offence. The Turk, like the Spaniard, has too much pride, even in his dishonesty, to commit so mean an offence. The common punishment for perjury, the great promoter of all crimes, is only to ride backwards on an ass. The punishment of death is inflicted in various ways. Sometimes the criminal or the victim, is strangled by a rope called the bow-string, twisted with a stick at the back of the neck. Impaling is rare, but decapitation by the cimeter is common. The bodies are thrown for three days into the street, and are often devoured by dogs. For adultery it is at Constantinople the practice, after a brief consultation with the cadi, to tie the female in a sack, and drown her in the Bosphorus. It is not, however, very common. All the operations of the judicial authorities are prompt and summary, and if the guilty are punished, it is little heeded, that the innocent may suffer. At Pera, the Franks complained, that many robberies had been committed by the porters, and several were in consequence strangled. The evil continued, and the porters were employed in a body to carry grain on board the Capudan Pacha's ship, where all were seized, and drowned.

The ulemas are men learned in the laws, and include ministers of religion, doctors in law, called muftis ; and judges, called cadis. The grand mufti resides in the capital and his person is sacred ; the Sultan cannot condemn to death any inferior mufti, till he has first invested him with some other office. The mufti expounds the law and gives a written decision, even to a feigned case, called "*fetva*." There are 55 volumes of these decisions, of which the following are samples. "Can the son-in-law legally marry his mother-in-law ? He cannot. God knows best. Can women and children of property be assessed ? Yes. God knows best."

20. *Antiquities.* The Turks are no conservators of antiquities ; and the best remains of the conquered people have disappeared. The walls of Constantinople are still nearly perfect ; and in several places they are inscribed with the names of the emperors. The mosque, which was the church of Sancta Sophia, is preserved only because the conquerors converted it to the uses of their own worship. In the Hippodrome, which is about 400 feet long by 100 wide, is a pyramid, a needle of Egyptian granite, and the column of two twisted serpents, that supported the tripod at Delphi. The heads of the serpents have been broken off. Several cisterns show the magnificence of the ancient city. Some are filled up with sand, and used as gardens, and some, that are still covered, are turned to other uses. One, called the Strangers' Friend, is a vast subterranean edifice, supported by marble pillars. It is of great depth, and has 672 marble columns, each column being composed of three pillars. It holds 1,237,939 cubic feet. It will supply the whole city with water for 60 days. Another cistern is like a subterranean lake, and extends under several streets. The roof is arched and supported by 336 magnificent pillars. This only is put to its original use, yet its existence is not generally known to the citizens. A number of tubes ascend to supply the streets above, yet so incurious are the Turks, that the people who use the water know not whence it comes. The Aqueduct of Valens, stretching from hill to hill, is a magnificent object. The streets run through it and beside it. Vines occupy the crevices, and, nourished by the water, hang down in wide patches of green.

The Labyrinth of Crete, the residence of the fabled Minotaur, can now be explored with safety only by the means furnished by Ariadne, that is, by a thread, to point out the way of return. The entrance is natural but very narrow, and opens into a wider passage, somewhat obstructed by stones, and with a flat roof cut in the rock above. On leaving this, it is necessary to creep 100 paces through a low passage. From this the roof rises again, and various roads both diverge and cross each other ; they are about seven feet high, and from six to ten wide ; cut with the chisel in the rock. The number and complication of them are beyond description. Some curve gradually and lead to open spaces, with roofs supported by pillars. Savary unfolded 400 fathoms of line, without including lateral and other excursions, but did not examine the whole labyrinth. The air is unwholesome, and there are no stalactites. The dark recesses are peopled by millions of bats.

21. *Population and Revenue.* The population of this great empire is by no means equal either to its extent or fertility ; nor is it possible to state it with perfect accuracy. The tyranny under which the natives groan, the practice of polygamy, and the prevalence of the plague, all tend to check increase. It is thought that the number of inhabitants, including the 3 principalities, is about 12,000,000. The public income arises from uncertain sources. One of the most permanent is a *miri*, or tenth of the produce of the lands of the whole empire. A property-tax, and a poll-tax, levied on Greeks, Armenians, and Jews, together with the customs, are the other permanent sources. The national income is augmented by confiscations, casual contributions, and imperial exactions. The impositions on Christians are altogether arbitrary, and may consequently be extended to the most oppressive degree.

22. *Army and Navy.* The Turkish army in war has been estimated at upwards of 300,000 men. The late Sultan was successful in the attempt in which all his predecessors failed, to introduce European discipline. The navy has lately been stated at 20 ships of the line, with 15 frigates, and a few smaller vessels. The sailors are inexpert and undisciplined.

23. *History.* The origin of the Turks, although comparatively recent, is obscure. Their name begins to appear in history about the middle of the 6th century, when they attracted notice as a Scythian tribe, settled at the foot of the Altaian mountains, between Siberia and China. The Saracen caliphs of Bagdad chose their body-guards from this tribe; and the Turkish chiefs, gradually assuming authority, at length engrossed the whole power of the state and elevated themselves to the throne. In the 9th and 10th centuries, Turkish dynasties reigned in Palestine, Syria, and Egypt, but the proper founder of the Ottoman Empire was Osman, or Othman, a predatory chief, who conquered Asia Minor, and assumed the title of sultan, in 1300. Mahomet the Second conquered Constantinople in 1453, and this was the overthrow of the Greek Empire.

The rapid progress of the Turkish arms, threatened the downfall of Christendom, but the vigorous resistance of the Christian powers checked their incursions into the west of Europe, and in the 17th century the Ottoman power began to decline; it encountered, the following century, a new enemy in the Russians, who first displayed to the world the secret of its intrinsic weakness. The same nation may be considered as having accomplished the overthrow of the Turkish influence in our own days, when in 1828 a Russian army crossed the Balkan, advanced nearly to the gates of Constantinople, and dictated a peace to the Sultan. Turkey is no longer considered a first-rate European power, and, since that period, has been obliged to submit to the loss of Greece. Still more recently she has been subjected to the deeper humiliation, of seeing her empire nearly subverted by the Pacha of Egypt, who was only stopped in his career of conquest by the interference of the great powers of Europe.

CHAPTER XXII. SWITZERLAND.



Chamois.

PHYSICAL GEOGRAPHY.

1. *Boundaries and Extent.* Switzerland is bounded north by the grand duchy of Baden and the kingdom of Wurtemberg; east by the Austrian province of Tyrol; south by the Sardinian and the Lombardo-Venetian States, and west by France. It extends from $45^{\circ} 50'$ to $47^{\circ} 50'$ N. latitude, and from $5^{\circ} 50'$ to $10^{\circ} 30'$ E. longitude. Its length from east to west is 200 miles, its breadth from north to south 130; and its superficial extent has been estimated at 17,000 square miles.

2. *Mountains and Valleys.* Two distinct ranges of mountains traverse Switzerland. The chain of the *Jura* stretches from southwest to northeast. The *Alps* form a more extensive chain, and run nearly parallel to the Jura with numerous branches known among geographers by the names of the *Pennine*, *Lepontine*, and *Rhätian Alps*. These mountains cover a great part of the country and exhibit inaccessible peaks covered with snow; eternal and boundless wastes of ice; valleys surrounded by immense precipices; in contrast with wooded and unda-

ating slopes, vine-clad fields, and bright patches of vegetation. *Mont Blanc*, the highest summit in Europe, overlooks the celebrated vale of Chamouni in Savoy ; a district not comprised within the political limits of Switzerland, but which pertains to it in a geographical character. This mountain is 15,814 feet in height ; it is capped with eternal snow, and the approach to the top is so full of difficulty and hazard that it has never been ascended, except in 4 or 5 instances. The *Helvetian*, or *Lepontine Alps*, extend from Mount Ross to Mount Bernardino ; their most elevated branch forms the northern boundary of the Valais, stretching from the Lake of Geneva to Mount St. Gothard. The loftiest summit is *Finsteraarhorn*, 14,111 feet high ; the *Jungfrau*, or *Virgin*, is 13,718 feet high. The *Rhätian Alps* extend through the Grisons and Tyrol, sending off a branch to Lake Constance. Some of their summits in Switzerland attain the height of 12,000 feet.

One distinguishing characteristic of the Swiss mountains is the Glaciers, which resemble a stormy sea, suddenly congealed and bristling all over with sharp ridges.* The avalanches, or slips of snow, form another peculiar feature in the scenery of this country. There are innumerable valleys, entirely desolated, and almost inaccessible to anything having life, in consequence of these tremendous visitations from the surrounding cliffs. Not only the snow-fields, but mountains themselves, occasionally, slide down upon the country below. In 1806, a piece of the Rossberg, twice as large as the city of Paris, slipped down at once into the Lake of Lowertz, and occasioned the most dreadful devastation. Another accident of the same kind occurred on the Lake of Lucerne, in 1801, when 11 persons were drowned at a village on the opposite side of the lake, by the wave raised by the plunge of the falling mass. Switzerland abounds in deep and romantic valleys, many of which are fertile and well-cultivated, and full of wild and picturesque scenery.

3. *Rivers.* The *Rhine* has its three sources in the Rhätian Alps, and, passing through the Lake of Constance, flows to the westward, until it reaches Basle. The *Rhone* is formed by different streams from Mounts Grimsel and Furca, and flows into the lake of Geneva. The *Tesino* issues from Mount Griers and traverses lake Maggiore in Italy. The *Inn* rises in the Grisons, runs northeast, and subsequently joins the Danube. The *Aar* is the principal stream which has its course wholly in Switzerland. Rising in the Lepontine Alps, it traverses the lakes of Brienz and Thun, and, after receiving the waters of the lakes of Neufchatel, Zurich, Lucerne, and some other lakes, empties itself into the Rhine.

4. *Lakes.* The Lake of *Geneva*, called also *Leman*, is 40 miles long. It is 1,230 feet above the level of the sea, and its greatest depth is about 1,000 feet. The waters of this lake are beautifully transparent, and the surrounding scenery has long been celebrated for its magnificence. The *Lake of Constance* is about 45 miles in length, and 15 in breadth. The *Lake Lagano* is at an elevation of 880 feet above the sea. The *Lake of Lucerne*, or the *Four Forest Cantons*, is above 20 miles in length, and from 8 to 10 in breadth ; its greatest depth is about 600 feet, and its navigation dangerous. Among the numerous other lakes are those of *Zurich*, *Neufchatel*, *Thun*, *Brienz*, *Morat*, and *Biel*.

5. *Climate.* From the great elevation of Switzerland, the air is pure and salubrious ; and though in some of the narrow valleys, where radiation is great, the heat is often excessive, yet the atmosphere is in general much cooler than might be expected from the latitude. Three different climates may be said to exist in this country ; viz. the *cold* in the Alps, the *temperate* in the plains, and the *hot* in the canton of Tesino. In the valleys, however, the temperature of districts at a short distance from one another, often varies extremely.

6. *Soil.* In the upper regions of Switzerland, which fall within the limits of cultivation, the soil is chiefly composed of particles crumbled from the rocks that tower above them, and is consequently stony and barren, or merely clothed with a scanty covering of short herbs ; but in the lower tracts it is often rich and productive, and in a few places marshy.

7. *Geology.* The Alps afford the materials of continual study to the geologist who exam-

* A recent traveler, in describing them, says ; " You cannot picture the scene ; but you can form some idea of the awe-struck astonishment which filled our minds, when, after surmounting all the difficulties of the way, we found ourselves standing amidst a world of ice, extending around, beneath, above us ; far beyond where the straining sight, in every direction, vainly sought to follow the interminable frozen leagues of glaciers, propped up in towering pyramids, or shapeless heaps, or opening into yawning

gulfs, and unfathomable fissures. Here there is no trace of vegetation, no blade of grass, no bush, no tree ; no spreading weed or creeping lichen invades the cold, still desolation of the icy desert. It is the death of nature ! The only sound which meets the ear is that of the loud detonation of the ice, as it bursts open into new abysses with the crash of thunder, and reverberates from the wild rocks like the voice of the mountain storms "

ines them. Granitic rocks, of a date posterior to the formation of organized beings, make up the chain connected with Mont Blanc. Different calcareous ramifications of the same chain extend a long way northwards, and rise to a great height, while the granitic rocks on the south descend to the confines of Italy.

8. *Natural Productions.* Forests of larch, pine, and fir, intermixed with yew, mountain ash, and birch, clothe the sides of the Swiss Alps; the oak, elm, ash, beech, lime, and chestnut flourish here.

9. *Minerals.* The mountains abound in marble, porphyry, and alabaster. Iron, lead, copper, zinc, crystal, cobalt, bismuth, arsenic, and antimony are found in veins and masses. Quarries of rock-salt are met with, particularly in the Pays de Vaud.

10. *Animals.* Cattle are plentiful, and form the chief wealth of the inhabitants. The tame animals are those common to Europe; among the wild ones are the ibex, the chamois, and the marmot, and in the unfrequented tracts, bears, lynxes, and wolves are common. Birds of

prey are not unfrequent; among which is the golden or bearded vulture, or lammer-geyer, which is often known to carry off lambs.

11. *Cataracts.* The falls of the Rhine at Schaffhausen, are the most celebrated in Europe; they consist of a violent rapid of about 80 feet in descent; the whole mass of water is broken into foam in the fall, and resembles a cataract of snow; the roar and agitation surpass even Niagara. The falls of the Staubbach are produced by a small mountain torrent, which falls 800 feet into a rocky cleft; the water is dashed completely into vapor

before it reaches the bottom. There are many other cascades among the mountainous parts.

12. *Face of the Country.* The general surface of Switzerland exceeds in rugged sublimity any other portion of Europe. Nature seems here to have formed everything on her grandest scale, and offers the most striking contrasts. Icy peaks rise into the air, close upon the borders of fertile valleys; luxuriant cornfields are surrounded by immense and dreary plains of ice; in one step, the traveler passes from the everlasting snow to the freshest verdure, or from glaciers of chilling coldness to valleys from whose rocky sides the sunbeams are reflected with almost scorching power.

13. *Roads.* Some of the Alpine passes in this country are the result of immense labor and ingenuity. Those of St. Gothard and the Simplon are the most frequented. The Simplon is a mountain situated in the chain of the higher Alps, between the Valais and Piedmont, in which is found a passage to Italy. The old road being practicable only for foot-passengers and travelers on horseback, in 1801, Bonaparte directed a magnificent road to be constructed, which was completed in 1805. Between



Mount Simplon.



Simplon Road.

tween Gliss, in the valley of the Rhone, where the road commences, and Domo d'Ossola, in

Piedmont, where it terminates, there are 4 forests of pine, upwards of 30 cascades, several glaciers, 22 bridges, and 6 covered galleries, or tunnels, excavated through the solid rock. The road is 24 feet in width, bounded by strong railings of larch, or parapets of granite, with small buildings erected at short distances, for the shelter of travelers. In many other places, roads have been formed along the edges of precipices, bridges thrown over frightful chasms, and tunnels cut through rocks; and the mighty obstacles interposed by nature have been removed by the skill and boldness of art.

POLITICAL GEOGRAPHY.

1. *Divisions.* The Swiss confederacy consists of 22 cantons, which are subdivided into various political divisions. The following table contains a list of the cantons, ranged in order of size, with their population by the census of 1840.

<i>Cantons.</i>	<i>Population.</i>	<i>Capitals.</i>	<i>Population.</i>
Grisons	88,000	Coire	3,000
Berne	350,000	Berne	18,000
Wallis, or Valais	70,000	Sion, or Sitten	3,000
Vaudland, or Vaud	170,000	Lausanne	10,000
Tessin	102,000	Lugano	4,000
St. Gall	144,000	St. Gall	9,000
Zurich	218,000	Zurich	11,000
Lucerne	116,000	Lucerne	6,000
Aargau	150,000	Aarau	3,000
Friburg	84,000	Friburg	7,000
Uri	13,000	Altorf	2,000
Schweitz	32,000	Schweitz	5,000
Glaris	28,000	Glaris	4,000
Neuchâtel, or Neuenburg	51,500	Neuchâtel	5,000
Thurgau	81,000	Frauenfeld	2,000
Unterwald	24,000	Sarnen	2,000
Soleure, or Solothurn	53,000	Soleure	4,000
Bâle	54,000	Bâle	16,000
Appenzell	55,000	Appenzell	3,000
Schaffhausen	30,000	Schaffhausen	6,000
Geneva	62,500	Geneva	26,000
Zug	14,500	Zug	3,000

The largest cantons have an area of from 1,000 to 3,000 square miles; the smallest, of from 85 to 300. Population of the confederacy in 1845, 2,400,000.

2. *Canals.* There are several canals in Switzerland, but none of great extent. The *Canal of Linth*, 15 miles in length, connects the Linth, by a navigable channel, with lakes Walenstadt and Zurich. It has been proposed to unite the waters of Lake Neuchâtel with those of the Lake of Geneva by a canal.

3. *Towns.* Zurich, Berne, and Lucerne become alternately, each for the space of two years, the capital of the confederation. Zurich has this privilege in 1839 and 1840; Berne, in 1841 and 1842; and Lucerne, in 1843 and 1844.

Geneva is the most populous and flourishing city of Switzerland. It stands at the head of the lake of the same name, just where its waters are discharged into the Rhone. Its environs, filled with elegant villas, are remarkable for the beauty and magnificence of their scenery. Geneva is enriched by the industry of its inhabitants, who are also favorably distinguished for the interest they take in letters. This spirit pervades the laboring classes, and has acquired for Geneva the title of the Swiss Athens. Watchmaking is the most important branch of industry, occupying 3,000 persons, who make annually 70,000 watches. Other articles of gold and silver, and scientific and mechanical instruments, silks, cotton goods, porcelain, &c., are also produced here. The commerce is likewise extensive, and the learned institutions numerous. Population, 31,000.

Berne is a handsome city, delightfully situated upon the Aar; its trade and manufactures are flourishing, and it contains a university, and various seminaries and scientific establishments. Its population is 24,000. In the vicinity is *Hofwyl*, containing the celebrated farm-school of the philanthropic Fellenberg. Fourteen miles west from Berne, is *Morat*, where, in 1476, the freemen of Switzerland vindicated their liberty by a decisive victory over the invading hosts of Charles the Bold, duke of Burgundy. An obelisk has been erected here to commemorate the event.

Bâle or *Basel* is the largest city of Switzerland, but its population, amounting only to 23,000,

is not proportionate to its extent. It is distinguished for its erudition and its industry, having an active trade, a flourishing commerce, and many learned institutions. *Zurich* is pleasantly situated on the Limmat, at the extremity of the pretty lake of the same name. Like *Bâle* and *Geneva*, it has long been distinguished for its cultivation of learning, and it has extensive manufactures and a flourishing trade. Population, 15,000.

Lausanne, the capital of the Pays de Vaud, is much visited by foreigners, on account of its delightful situation. It stands near the lake of *Geneva*, the banks of which are covered with vineyards, while the snowy summits of the Alps rise in the distance. *Gibbon* resided here for some time. Population, 16,000. In the northern part of the canton is *Yverdon*, where *Pestalozzi* established his school. *St. Gall* contains a celebrated abbey, numerous manufactures, and some literary institutions. Its trade is extensive. Population, 11,500. *Friburg* deserves notice on account of its numerous literary establishments and its Jesuit's college. Population, 9,200.*

Lucerne, on the lake of the same name, occupies a gentle eminence, and is surrounded by a wall and towers. Among its curiosities is the model of Switzerland, executed in relief by the late General *Pfyffer*. Population, 8,500.

4. *Agriculture*. The nature of the country presents numerous obstacles to its cultivation; but they have been, in a great measure, overcome by the industry of the inhabitants. The traces of the plough are visible on the sides of the precipices apparently inaccessible, and spots, which nature seemed to have doomed to eternal sterility, are crowned with vegetation. The produce of grain is generally equal to the consumption; but pasturage is the chief object of the farmer.

5. *Manufactures and Trade*. The chief manufactures are cotton and woolen goods, linen, silk, leather, jewelry ware, and particularly watches. Though in the centre of Europe, Switzerland has been much restricted in its commercial intercourse, by the barriers of the Alps, and the prohibitory systems of the neighboring States. Of late years, however, all the branches of industry have been flourishing, and the various roads over the Alps, and the introduction of steam navigation upon the lakes, have facilitated the intercourse with foreign nations, and between the different cantons. The principal exports are cattle, the productions of the dairy, and manufactured goods. The imports are principally corn, flax, raw silk, cotton, spices, and various kinds of manufactured goods.

6. *Inhabitants*. The Swiss have the beauty that comes from strength and health. They are robust and temperate, but their countenances have little of the *beau ideal*. In the territories that border on France, Germany, and Italy, there are French, Germans, and Italians, and there are a few Jews, principally in Aargau.

7. *Dress*. The higher classes generally follow the French fashions; but the common people have many peculiar forms of dress; varying somewhat in the different cantons, and all picturesque. They are less becoming, however, than the common prints would lead one to suppose. They are generally simple and convenient. The dress of the females is the most peculiar, for the men have no longer a national dress. It consists partly in a short petticoat,

* The following description of the great suspension bridge at Friburg, the longest bridge of a single span in the world, is from a scientific journal. This great work was completed in two years and a half, at a cost of about 112,000 dollars.

The town of Friburg is built on the left bank of the Savine. Both sides of this small stream are very steep, and rise to the height of about 220 feet; and travelers were formerly obliged to descend the hill in order to reach a small wooden bridge which crosses the river, and immediately after, by a steep ascent of about 200 feet, to reach the top of the opposite bank, before coming to the centre of the town. The passage through Friburg thus occupied nearly an hour. These difficulties were long considered the unavoidable consequence of the situation of the town, until some bold spirit conceived the idea of uniting, by means of a suspension bridge, the steep banks of the Savine. It was necessary, that the bridge should pass over a great part of the town itself, and the scheme was considered completely utopian.

The gateways at either end of the bridge, are 65 feet high. The masonry of the gate is 46 feet in width, and its thickness is about 20 feet; and although the largest blocks of hard limestone were employed, iron cramps com-

plete the union of the stones, and about 24 tons of iron were used for this purpose. The width of the valley of the Savine, at the point where the bridge is built, or, in other words, the span of the suspended roadway, is 871 feet.

The roadway is suspended by four cables of iron wire, passing over the upper part of the gateways. Each cable consists of 1,200 wires, each about 1-10th inch in diameter, and 1,140 feet in length. To avoid the difficulty of moving these heavy cables, each wire was brought separately to its place, and they were united on the spot by the workmen, who were suspended during the work. It is calculated, that the four united cables are capable of sustaining a weight of 2,946 tons. The cables are fixed in shafts cut out of solid rock, on either side of the river; on each of these shafts, four cables pass through a vertical cylindrical chimney or pillar, which bears three heavy domes resting upon it, and at the same time abutting against grooves cut with much care in the rock to receive the springing stones. At the bottom of the pillars, the cables are made fast to blocks of very hard stone, which are cubes of six and a half feet. The cables, therefore, cannot slide without lifting the whole of these enormous buildings, strengthened as they are by their connexion with the solid rock

which shows the stockings as high as the knee, and a wide, flat-hat, without a crown, tied under the chin. Near Berne the hat gives place to a strange looking black cap, standing off the face, and in shape like the two wings of a butterfly. In some parts, the hair is plaited and pieced down to the heels. In Appenzel the modern invention of braces is not yet adopted; the dress is a scanty jacket and short breeches, and there is a preposterous interval between the two garments, which the wearer makes frequent but ineffectual hitches to close.

8. *Language.* About two thirds of the Swiss speak the German language, but often of a very corrupted dialect; and the majority of the other third, French. The rest use the Italian, and the Romanish, a corrupted dialect of the Latin, and not much unlike the colloquial language of the Romans.

9. *Manner of Building.* There is some difference in this, in the various cantons and towns. In the canton of Vaud (and in many other places), the houses are often 80 or 100 feet square, and though low they have a very high shingle roof, loaded with large stones, as a defence from the wind, and projecting in the piazza shape, over an outside gallery, up a flight of stairs. This is the part occupied by the family. The lower story, barricaded with firewood, and buried in snow in winter, is the cellar, where provisions are kept, and domestic animals are housed. These houses are much exposed to fires, and are under the protection of a mutual insurance, at three fourths their value. They are chiefly built of stones, and some of them are thatched, or tiled.

At Berne and Neufchatel are a great many fountains of the purest water; at the latter city, they flow into gigantic basins. The lofty terraces at Berne have a very imposing look, and the massy arcades, here and at Bienne, like the arches of a bridge, and on which the houses are built, give the towns a strange and massy appearance. On the ends of many houses are written the names of the builders, or occupants, with verses from Scripture. There are few public buildings in Switzerland of much architectural grandeur, though there are many venerable with age. The shepherds have rude *chalets* of logs, or stones, as temporary tenements.

10. *Food and Drink.* The Swiss are almost a pastoral people, and much of their subsistence is drawn from their flocks and herds. Bread is a luxury in many valleys in the Alps, where milk and its preparations form the basis of nutriment. In the mountainous part of Berne, a custom still exists, for many families connected by affinity or marriage, to make in common a cheese of enormous size. On it are carved the names of parties about to be married, and the cheese often serves for the marriage of their descendants. In some remote parts, every family with a year's provision, may feel the dignity of wealth, and the people by way of ostentation, offer to visitors mouldy food, to show that they have on hand the provision of a preceding year. Wine and spirits are somewhat used in Switzerland, but the inhabitants are temperate. Much tobacco is consumed, chiefly in smoking. The pipes are of silver, with large bowls, and hang down upon the breast.

11. *Diseases.* Switzerland is highly salubrious. There are, however, pulmonary complaints, and the usual alpine diseases, particularly goitres, prevail in various parts.

12. *Traveling.* The facilities for foreigners to travel in Switzerland, are less than the inducements. The air of the mountains, however, will create an appetite for the plain and simple food that is generally found at the inns. Within the present century there were no inns in the mountains, and the traveler stopped at the house of a clergyman or substantial farmer. The roads are of all kinds; some hard and smooth, having seats and fountains, at regular distances; but more are impassable to carriages, and scarcely safe for the sure instinct of mules. On some routes there are regular post coaches; but generally the traveler, unless he walks, hires his own conveyance. In the mountains a *char-à-banc* is used, a light carriage of 2 flexible bars on 4 wheels. Two or three people sit sideways upon the bars, and the driver sits in front. There is but one horse. Many travelers prefer to explore Switzerland on foot, a cheaper and not less expeditious mode of traveling.

13. *Character, Manners, and Customs.* The Swiss, like all mountaineers, are attached to their country, which they have often defended against fearful odds. It is remarkable, that countries the least fertile are the most beloved by the inhabitants; an Italian or a Spaniard may be contented in exile, but seldom a Swiss; and an Esquimaux or a Greenlander finds nothing in Europe to compensate absence from his barren rocks and icy seas. The Swiss nevertheless emigrate, though he often returns when he has acquired a competency, to his sublime, but unproductive mountains.

"And as a child, when scaring sounds molest,
Clings close and closer to the mother's breast;
So the loud torrent and the whirlwind's roar,
But bind him to his native mountains more."

The Swiss have a quiet temperament, and mediocrity of genius. The country has produced few men distinguished for genius; though collectively the people have performed great achievements. They have nothing of the melancholic, poetic character, that distinguishes the Highlanders of Scotland, or their Italian neighbors on the other side of the Alps. They are moral, faithful, industrious, and brave, and they are the only people in Europe, who have habitually served as mercenaries in foreign armies. But in every service they have proved their courage and fidelity. They retain much of their pastoral simplicity, and may be characterized as a race of heroic husbandmen, worthy to be the countrymen of Tell. They are familiar with the use of arms, and there is a law that no one shall be married, who has not arms, uniform, and equipments.



Swiss.

At Geneva, the mode of life is extremely social. The *soirées* are constant, from November till spring. The ladies go to them on foot, preceded by a servant with a lantern, for there are few carriages or sedans at Geneva. These meetings resemble family assemblages, in their freedom from the constraints imposed by etiquette. A stranger is struck with the affectionate terms by which women of all ages address each other, such as *mon cœur, ma mignonne, mon ange*. These come from the influence of certain "Sunday Societies," in which children meet at their parents' houses, where they are left to themselves, and have a light supper of fruit, pastry, &c. The friendships thus formed endure through life, and the youthful expressions of fondness are never dropped.

At Zurich there is less social visiting. The men are inveterate smokers, and have their own meetings, in an atmosphere of smoke, that no female could endure. In the canton of Berne there is a custom of Saturday night visiting among young people, somewhat resembling a practice unjustly attributed to New England. Young men who are there engaged in agricultural labors, have little time for visiting but on Saturday nights. The young women, who generally expect company on that night, are seated at the windows neatly dressed, and they answer the form of salutation, which is in verse, by another verse, either in the affirmative or the negative. The visitor, if not repulsed at this stage of the siege, climbs up to the window of an upper story, on certain projections of the wooden houses, where he sits a while, and further parley is held, when he takes some refreshment, generally cherry-brandy and gingerbread. Sometimes the visiter advances no further than the window, but often he is admitted to the chamber. This proceeding is so open to observation, that it loses some of its indelicacy, while it subjects the accepted swain on his late return, to the cudgels of his less fortunate rivals. For this reason, young men frequently escort one another, on such occasions.

14. *Amusements.* Hunting the chamois is perhaps rather an amusement than an amusement in Switzerland; for many pursue it constantly. The pursuit, though enticing and fascinating, is full of danger, and few hunters attain to age, or receive Christian burial. They go to the mountains and never return; being crushed by falling ice or stones, or mangled by a fall into some covered gap, or from some giddy and slippery precipice. The hunter must have steadiness of nerve, hardihood, and contempt of death. He must climb icy barriers, where a slip of hand or foot would precipitate him down a fathomless abyss, or stand in a gale upon a pinnacle of a rock, with the confidence of the chamois itself, where, as Gray said, a goat may "dance and scratch an ear with its hind foot, in a place where I could not have stood still for all beneath the moon."

The chamois is a timid and sagacious animal; the hunter creeps toward a flock, with his shirt over his clothes, and lies motionless in the snow, for half an hour, if the herd appear alarmed. At the distance of about 250 steps, he aims at the darkest coat, which generally indicates the fattest animal. Accustomed to the detonations of the mountains, the chamois sometimes stand a second shot, if they do not see the smoke, or scent the powder. The other amusements of the Swiss are dancing, and the sports and games common in Europe.

15. *Education.* In this, the Protestant cantons excel the Catholic, though neither, except Geneva, have kept pace with the spirit of the times. Switzerland has three universities, those of Basle, of Zurich, founded in 1833, and of Berne, founded in 1834. The superiority of education in Geneva is greatly owing to maternal care and zeal, and to the effect of the Sunday Societies. At Yverdon is the school founded by Pestalozzi, in which it is the great aim of the teacher to make the pupils construct the sciences themselves, as far as they are able, without the artificial rules which might facilitate their progress, but leave them in ignorance of the rationale of a science. At Hofwyl, near Berne, is the school of De Fellenberg, who, in his celebrated institution, has united agriculture, &c. with education, though education is the primary object. His system is the best to show on a large scale, how the children of the poor may be taught, and their labor at the same time profitably applied; and if it were universal, would change the moral aspect of the world. In executing it, however, much depends on the personal character of the teacher. The pupils go to their work soon after sunrise, having first breakfasted and received a lesson of about half an hour. At noon they return, and after dinner, which takes half an hour, a lesson follows of 1 hour, and then work till 6. On Sundays the lesson takes 6 hours. The boys seldom see books; they are taught *viva voce* a few matters of fact, and rules of practical application; much of their education is moral, and they grow up in habits of industry, kindness, and veracity.

16. *State of the Arts, Sciences, and Literature.* At Geneva, and in some other towns, there is a general taste for the arts, which is so far cultivated, that the ladies commonly draw with much precision. Mr. Decandolle, at Geneva, having borrowed for a few days, a great collection of drawings of American plants, 860 in number, and filling 13 folio volumes, had them well copied in a week, by 114 female artists. Switzerland, however, has not produced any leading artists; the best have been Holbein, Graff, and Angelica Kauffmann. The talent for music, especially in the German cantons, is general. The *ranz des vaches* is an air singularly wild and melancholy, and when sung, is broken by a sudden shriek, like the war-song of an American savage. A peculiar strain like this is associated with the remembrance of home; and the impressive scenes of Switzerland have a powerful effect on the Swiss in foreign countries; in some military services it has therefore been forbidden to play the *ranz des vaches*. The literature is merged in that of Germany and France. The French cantons have produced Beza, Causabon, Necker, De Staël, Huber, Le Sage, Rousseau, Sismondi, Decandolle, &c., and the German cantons, Haller, Gessner, Lavater, Paracelsus, and others.

17. *Religion.* The Reformed or Calvinistic Protestants from three fifths of the population, most of the remainder being Catholics; but there are a few Lutherans, Anabaptists, and Jews. The Catholics have 190 cloisters, and 3,500 recluses. The Protestant form of church government is Presbyterian. The Catholic religion predominates in 10 cantons, and the Protestant in 12. In several, however, both creeds are mingled, and all parties live in much harmony.

18. *Government.* Each canton is a sovereign state, but the 22 cantons are united by the act of confederacy into a federal body for the preservation of order, and the security of liberty and independence. The diet or federal congress is composed of deputies from the cantons, each canton having one vote. The president of the diet, who is considered the chief magistrate of the confederation, is styled the Landammann; this dignity is borne by the chief of the canton in which the session of the diet is held. The diet has power to make war and peace, contract alliances, and make treaties with foreign States; regulates the military contingent of each canton, &c. The standing army in peace is but 1,200 or 1,300 men; the war contingent 64,019 men. Each canton, like the States in this country, is governed by its own laws, and the constitutions of government are various; Neufchatel is a constitutional monarchy, the king of Prussia being its executive head; Berne, Lucerne, Friburg, and Soleure are aristocracies; the other 17 cantons have constitutions based on more or less democratic forms and principles.*

19. *Laws.* Justice is generally well administered in Switzerland; but this is as much from the good spirit of the people, as the excellence of the laws. The revolutions of the present century have, however, much ameliorated the system. At Zurich, the legal proceedings are secret; and if there is corruption, it is not of the kind which comes from venality. The torture by flogging, was until lately applied *ad libitum*, to extort confession; now it is regulated by a special order of court, prescribing the number of lashes! The administration of justice in France is better than in most of the Swiss cantons.

* The cantons of Appenzell and Schveitz, divided into Lower; and that of Bale into the City and Country, actually form 8 separate governments.

20. *Antiquities.* At Augst, not far from Bâle, are the ruins of a Roman city, partly under the level of the Rhine. The theatre, aqueduct, and walls are indistinct; but there are in the library at Bâle 12,000 medals, chiefly found in these ruins. It is supposed, that the city was destroyed by an earthquake. At Avenche, the ancient Aventicum, are, among other antiquities, mosaic pavements, sculptured cornices, &c. The bridge of St. Maurice, over the Rhone, was built by the Romans; it is very narrow but solid. It has a single arch of 200 feet, resting on mountains on either side, gigantic abutments of 8,000 feet.

21. *Population, Revenue, &c.* The population is estimated at 2,000,000. The revenue of the country, before it was conquered by the French, was 4,662,000 dollars. At present it is about half that sum. It is raised from domain lands, taxation, and customs. Each canton supplies a certain contingent to the general army of the confederacy, which amounts to about 33,000 men, and the internal strength of the country is further increased by a body of militia. It is calculated, that above 30,000 Swiss are employed in the service of foreign States.

22. *History.* The Swiss are the descendants of the ancient Helvetii, subdued by Julius Cesar. They continued long under a nominal subjection to Austria, till about the year 1300, when the emperor Albert the First treated them with so much rigor, that they rose in rebellion. William Tell slew Gesler the Austrian viceroy, and delivered his countrymen. On this occasion, the three cantons of Uri, Schwitz, and Unterwalden, in 1308, entered into a league for mutual defence. At a later period, the other cantons were successively included, and in 1513, the federative republic was complete. Switzerland was overrun by the French armies in 1798, and the government experienced some alterations. Geneva and the Valais were, for a time, annexed to France, but were subsequently restored.



Tell shooting at the Apple upon his son's head.

A new constitution was established in 1814. Switzerland is nominally a neutral and independent power, but the influence of Austria is felt and acknowledged in every part of the confederacy.

CHAPTER XCII. GENERAL VIEW OF THE EMPIRE OF AUSTRIA.

1. *Boundaries.* The Austrian Empire is bounded on the N. by Bavaria, Saxony, Prussia, and Poland; on the E. by Russia and the principality of Moldavia; on the S. by Wallachia, Servia, the Ottoman Empire, the Adriatic, and the Po; and on the W. by Sardinia, Switzerland, and Bavaria. It extends from 42° to 51° N. lat., and from 8° to 26° E. long., having an area of 255,000 square miles, with 35,879,152 inhabitants, by the census of 1842.*

2. *Mountains.* Austria is traversed in different directions by numerous chains of the great Alpine and Carpathian systems of mountains. The mountainous chains to the south of the Danube belong to the former. The *Rhetian Alps* traverse the Tyrol; of which the *Ortler*, 12,850 feet high, is the loftiest summit. The *Noric Alps* extend across Salzburg and Stiria to the neighborhood of Vienna; principal summit, Gross Glockner, 12,755 feet high. The *Carnic Alps* extend from the sources of the Brenta to Villach, separating Tyrol and Carinthia from the Venetian provinces; highest summit 11,500 feet. A continuation of this chain extends to the southeast under the name of the *Julian Alps*.

The principal chain of the *Carpathian Mountains* surrounds the plains of Hungary like a semicircle, separating Hungary and Transylvania from Moldavia and Galicia, and dividing the waters of the Baltic from those of the Black Sea; they terminate at Orsova on the Danube. None of their summits exceed the height of 10,000 feet. A western branch of this system extends from the sources of the Oder to those of the Elster, under the general name of the *Sudetic Mountains*. They have an elevation of from 3,000 to 5,000 feet.

* This includes the Italian provinces. The description of the physical features of the empire will not extend to them, as they have been separately described in the account of Italy.

3. Rivers. Austria abounds in navigable rivers, which find their way to the 4 great seas of Europe. Those of Austrian Italy have already been described. The *Danube* traverses the governments of Upper and Lower Austria, and part of Hungary, in an easterly direction, then turning to the south, reaches the southern frontier of the latter kingdom, and, flowing easterly, separates it from Servia, and enters the Ottoman empire at Orsova. Its principal tributaries in Austria are the *Morava* or *Marsch*, and the *Theiss* from the north; and the *Inn*, the *Drave*, and the *Save* on the south. The *Elbe* traverses Bohemia, and passes into Prussia; the *Moldau*, which flows into it below Prague, is its principal tributary. The *Oder* rises in the Sudetic Mountains, and passes north into Prussia. The *Vistula*, which rises in the Carpathian Mountains, enters Poland; and the *Dniester* has its source in the same mountains, but takes a contrary direction and enters Russia.

4. Divisions. Geographers often describe Austria as divided into four great sections: the German provinces; the Polish provinces, or that part of Poland, which has been annexed to the empire; the Hungarian districts; and the Italian provinces. The political division of the empire is into 15 governments, differently denominated and regulated, and variously subdivided into circles, provinces, counties, &c. The following table contains a view of these various divisions.

GERMAN PROVINCES. Governments. 1. Upper Austria; 2. Lower Austria; 3. Tyrol; 4. Duchy of Stiria; 5. Laybach, and 6. Trieste (forming the kingdom of Illyria); 7. kingdom of Bohemia; and 8. government of Moravia and Silecia:

POLISH PROVINCE. Government. 9. Kingdom of Galicia:

ITALIAN PROVINCES. Governments. 10. Milan; and 11. Venice (forming the Lombardo-Venetian kingdom):

HUNGARIAN PROVINCES. Governments. 12. Kingdom of Hungary (comprising the kingdoms of Slavonia and Croatia); 13. Transylvania; 14. the Military Frontiers; and 15. the kingdom of Dalmatia.

5. Agriculture. Although Austria presents a great extent of good soil, agriculture is in so backward a state, that it is not highly productive. The processes and implements of husbandry are extremely imperfect. A considerable part of the country is covered with forests, which supply the inhabitants with fuel, coal being little used. There are extensive pastures in the Hungarian provinces, and natural forests, which contain vast herds of cattle in a wild state. Some of the wines of Austria are highly esteemed, but the difficulties of transportation prevent them from being largely produced for exportation. The wine of Tokay, in Hungary, is particularly celebrated.

6. Manufactures. The manufactures of Austria are extensive in the aggregate, but the operations are generally carried on upon rather a small scale, and the Austrians have neither that perfection of finish nor that ingenious machinery, which are to be found in the workshops of western Europe. Woolen, linen, and cotton goods, paper, cutlery, and hardware, leather, and glass, are the most important articles of manufacturing industry.

7. Commerce. Austria is unfavorably situated for foreign commerce; her northern provinces communicate with the sea only through the Elbe and the Vistula, by a long and difficult navigation; the eastern have navigable waters, which lead to countries not adapted for commercial operations, and the maritime coast on the Adriatic, although it has some good harbors, is separated from the interior by mountainous ranges, which render communication difficult. Trieste is the principal port, and displays considerable commercial activity. Fiume is the inlet to the Hungarian provinces, and Ragusa, to Dalmatia. The inland trade of Austria is active and flourishing.

8. Religion. The Roman Catholic religion is professed by a very great majority of the inhabitants. The adherents of the Greek church are numerous in Transylvania, the southern part of Hungary, and in Croatia, Slavonia, and Galicia. There are many Protestants in Hungary, Galicia, and the German provinces, and some Socinians or Unitarians in Transylvania. The number of Greek Christians is about 3,000,000; that of Protestants, 3,000,000, and that of Catholics, 29,000,000. There are nearly 700,000 Jews, chiefly in Galicia, Moravia, Hungary, and Bohemia. All religions are tolerated in Austria. The archbishop of Vienna is the head of the Austrian church; the landed property of the church is extensive, and there are 300 abbeys, and above 500 convents in the empire. There are 12 Roman Catholic archbishops, and 61 bishops, and the property of the church is estimated to amount to 90,000,000 of dollars. Among the Catholics are reckoned 3 1-2 millions of conformed Greek Christians.

9. *Education.* There are seven universities in the empire, besides those of the Italian provinces; at Olmatz, Vienna, Prague, Pesth, Lemberg, Innspruck, and Graetz. High schools and primary schools have also been established in which are instructed nearly two millions and a half of pupils. But the restraints upon the press and freedom of speech, render the Austrian incurious upon many moral and political subjects, which occupy the minds and pens of men in freer countries, and shut out large fields of literature from popular inquiry.

10. *Government.* The sovereign is styled the emperor of Austria, and the government, with some diversities in the different parts, is absolute in all, except in Hungary and Transylvania. In Hungary there is a diet, composed of the clergy, the nobility, deputies of the royal cities, and of the boroughs, which has the right of making laws in concurrence with the king, as the emperor is there styled, and of laying taxes. The constitution of Transylvania is similar. There are assemblies of the estates in Bohemia and Galicia, but their powers are merely nominal. In the hereditary States, as the archduchy of Austria, Stiria, Carinthia, and Carniola are called, the power of the emperor is uncontrolled, but is exercised with mildness. The Military Frontiers have entirely a military administration, and, in fact, are nothing more than a vast military colony, under the immediate management of the minister of war. They consist of a narrow tract extending along the northern frontiers of Turkey and the southern boundary of Hungary and Transylvania, and divided into four generalats or generalships. The inhabitants enjoy the use of the land which they cultivate, on condition of rendering certain military services, and all are, therefore, trained to military exercises. Even civil affairs are here conducted in a military form, and the magistrates have military titles. The purpose of this singular institution is to maintain a disciplined army of cultivators of the soil, always in readiness to defend the frontiers against the Turks.

11. *Inhabitants.* The inhabitants of this great empire belong to several entirely distinct races. 1. The Germans form the population of the archduchy of Austria, the greater part of that of Stiria and Tyrol, and the minority in the Hungarian and Polish provinces, and in Bohemia, Moravia, and Silesia. 2. The Slavonic race, comprising nearly one half of the population, consists of several different people; these are the Tzechs, or Bohemians; the Slowac, in Moravia and Hungary; the Poles, in Galicia; the Wends, in Stiria, Carniola, Carinthia, and Tyrol; the Croatsians, Dalmatians, &c. 3. The Uralian race comprises the dominant people of Hungary and Transylvania, or the Magyars. 4. The Latin race comprises the Italians, and the Wallachians of Hungary, Transylvania, and the Military Frontiers.

The Slavonians, scattered, as we have described, over a great extent, are the most backward and ignorant part of the population. They are commonly employed in mere rustic labors, and many of them are still in a state of servitude. Thus in Bohemia and Moravia, the German population conducts public affairs, transacts commercial operations, and exercises the mechanic arts, while the Slavonians are the common laborers; and in Hungary, the Magyars, who, though in general illiterate, are a spirited and intelligent race, and fond of active employments and a military life, leave the more servile kinds of labor to the Slavonic inhabitants; the Slavonians, in fact, are the conquered aborigines, who were reduced to slavery or kept in a subordinate state by their conquerors. In the Polish provinces, where the Slavonians form almost the whole population, they evince an aversion from mechanic arts and commerce, and the traders and dealers there, as in Poland, are mostly Jews.

Number of different Races.

Slavonians	16,000,000	Wallachians	2,000,000
Germans	7,000,000	Jews	700,000
Italians	5,500,000	Gypsies (Zigeuner)	100,000
Magyars	5,000,000	Armenians	20,000

12. *Revenue. Army.* In an agricultural country, like Austria, the customs are small, and the revenue is principally raised by land and poll taxes. In the Hungarian States, the nobility are exempt from taxes. The revenue of Austria is much smaller than those of England and France, not exceeding 70 millions of dollars; the debt is 400 millions. The army is composed of 230,000 men in peace, and can be increased to 750,000.

CHAPTER XXIII. THE HUNGARIAN STATES.

THESE States constitute a portion of the Austrian Empire, and consist 1st, of the Kingdom of Hungary, with the provinces of Slavonia and Croatia ; 2d, the Principality of Transylvania ; 3d, the Military Frontiers ; and 4th, the Kingdom of Dalmatia. The whole of these countries together, have a surface of 130,000 square miles, with a population of 13,800,000.

1. *Kingdom of Hungary.* This country is bounded northwest by Moravia ; northeast by Galicia ; east by Transylvania ; south by the Military Frontiers ; southwest by Illyria ; and west by Stiria and the Archduchy of Austria. Its length is 330, and its breadth 300 miles ; containing 89,000 square miles. The *Crapack* or *Carpathian Mountains* extend along the northeastern border. Near the centre of the chain, is the *Lomnitz* peak, which is about 8,640 feet above the level of the sea. Among the detached mountains are those of *Matra*, *Avas*, and *Farkas*. An immense plain, comprehending all Eastern Hungary, lies between the *Danube* and the *Transylvanian Mountains*. Another large plain, of a triangular form, runs from the boundaries of *Stiria* to the *Bakonian Mountains*.

Hungary does not border upon any sea, but is watered by very large rivers. The principal is the *Danube*, to the basin of which, all the others, except the *Poprad*, which runs into the *Vistula*, belong ; the chief tributaries are the *Leitha*, the *Raab*, the *Waag* or *Vag*, the *Gron*, the *Drave*, the *Sava*, and the *Theiss* or *Tisza* ; the whole course of the *Theiss* is 350 miles, and it abounds in fish. There are many lakes in this country ; the *Platten* or *Balaton*, near the centre of Lower Hungary, is about 45 miles long, and 8 broad ; the *Neusiedler*, on the frontier of Lower Austria, is a salt water lake of about 60 square miles, and is surrounded by fens.

The climate is, on the whole, warmer than that of Germany. In the valleys, snow falls as early as September, and seldom disappears before the middle of June. In the middle regions, the air is most pure and healthy. The flat country is unhealthy. The soil is sterile on the highlands, but improves in quality as the elevation lessens, and is luxuriously rich on the plains. Yet even in the most fertile tracts, there occur barren heaths of several miles in extent, where not a shrub is visible. The Hungarian and Transylvanian forests cover a space of 11,644 square miles.

There are a great number of mineral springs, and mines of gold, silver, lead, and copper ; very rich ore of antimony, coal, salt, and alum, are abundant. About 40 miles to the south of the *Crapack*, are the gold and silver mines of *Cremnitz* ; and 20 miles further to the south, are the silver mines of *Schemnitz*. The gold mine at *Cremnitz* has been wrought for 1,000 years and upwards, and is exceedingly rich. There is a mint here, where all the mine towns of Hungary and Transylvania send their gold and silver to be coined. The number of miners employed by the crown at *Schemnitz*, is 8,000. A mineral peculiar to Hungary is the opal, which is found at *Czernwenicza*, a short distance to the north of *Kaschau*. The hill in which the opals are found, consists



Salt Mine.

of a decomposed porphyry, and the gems occur at the distance of a few fathoms from the surface.

Hungary has in all ages been celebrated for its breed of horses, which are generally mouse-colored, and highly esteemed in war. The horned cattle are large, active, and vigorous. Buffaloes are not uncommon. Among the wild animals are wolves, bears, and boars ; but these are very rare.

Hungary may be considered as a great oval plain, surrounded on all sides but the south by lofty mountains, whence numerous and large rivers have their source, which gradually decline in velocity as they approach the plain, where, owing to the extreme flatness of the surface, and looseness of the soil, their currents are scarcely perceptible.

Near *Szadelo*, about 30 miles from *Kaschau*, is an extraordinary cavern, which is said to reach several miles under the hills, but has never been completely explored. Near *Szilitz*, is another celebrated cavern, about 100 feet in breadth, 150 in length, and 25 in height ; in one

corner is a great mass of ice. There are two large navigable canals in this country, viz. the *Francis Canal*, between the Danube and the Theiss ; and the *Bega Canal* extending from Facset to Becskerek.

Buda, the capital of Hungary, stands upon the right bank of the Danube, opposite *Pesth*, with which it is connected by a bridge of boats. It contains the palace of the viceroy of Hungary, and several other public buildings. *Pesth* is the largest, most populous, and active city of the kingdom, and each of its four annual fairs attracts 20,000 strangers from Hungary, and other provinces of the empire, and from Turkey. It is well built, containing many elegant public edifices, and mansions of the Hungarian nobility. Its university is one of the most richly endowed on the continent. The population of the two cities is 135,000, of which 90,000 are in *Pesth*.

Presburg is a well-built city on the Danube, with 45,000 inhabitants. It was formerly the capital of Hungary, and the Hungarian diet is still occasionally held here ; it is chiefly remarkable for the great number of its institutions for education.

Debretzin is the principal town in eastern Hungary, and the chief manufacturing place in the kingdom. Population, 60,000. Its four annual fairs are attended by great numbers of traders ; its manufactures comprise coarse woolens, leather, pottery, soap, &c. *Theresienstadt* and *Ketskemet* are large towns with extensive manufactures of woolens, leather, soap, &c. ; the former has 44,000, the latter 40,000 inhabitants.

Schemnitz, with 20,000 inhabitants, and *Kremnitz*, with 6,000, are remarkable for their rich gold and silver mines. *Mischkolocz* is a large town, with an active trade in corn, wine, and leather ; in its vicinity are numerous forges, glass-works, and paper-works. Population, 30,000. *Temeswar*, one of the strongest fortresses in the empire, owes its commercial activity to a canal, which connects it with the Danube. Population, 18,000. *Szegedin*, on the Theiss, has an extensive trade, with manufactures of tobacco, soap, woolen goods, and boots. Population, 32,000.

Most branches of agriculture are still in their infancy here. Hemp, flax, poppies, and tobacco are cultivated on a large scale, particularly the latter. Mulberry trees are plenty. Manufactures are little attended to ; the raw produce being easily sold to the neighboring states. The only article manufactured for exportation is leather. The commerce is subject to great restrictions from the Austrian system of taxation. We have no certain accounts of the revenue, but it is thought to be about 13,000,000 dollars. The army consists of 46,000 infantry, and 17,000 cavalry.

Sclavonia extends between the Drave and the Saave, and contains about 3,700 square miles. Nearly 2,500,000 sheep are fed on the Sclavonian pastures ; and the annual produce of grain is

estimated at an average of 12,000,000 bushels. Capital, *Essek*.

Croatia comprehends the maritime districts, denominated the *Littoral*, and the 3 counties of Agram, Warasdin, and Kreutz, forming an area of about 3,650 square miles. Agram, or *Sagrab*, is the capital, and contains 20,000 inhabitants. The country has several valuable mines of iron, copper, and lead, and produces salt, vitriol, coals, and sulphur, in abundance ; quarries of the most beautiful marble exist in different parts.

2. *Transylvania*. This country is bounded north by Upper Hungary ; northeast by the Bukowine ; east by



Transylvanian Girl.



Transylvanian Woman.

Moldavia ; southeast and south by Wallachia ; and west by Hungary. It lies between $45^{\circ} 25'$ and 48° N. latitude, and between $22^{\circ} 30'$ and 27° E. longitude. Its length is 180, and its breadth 150 miles ; and it contains 23,000 square miles. It is surrounded on all sides by ranges of mountains, some of which are covered with perpetual snow. It contains many delightful valleys, watered by innumerable streams, which enter the *Marosch* and *Alauta*, the two main rivers of the country. There are several lakes and marshes ; among the latter of which the *Hellmorass*, near Kovaszna, is remarkable on account of its unfathomable depth. The climate is more temperate and wholesome than that of Hungary ; but the water in many places is strongly impregnated with minerals, and is apt to produce cholics. The soil is good, and the rich pastures feed vast numbers of black cattle. There are extensive forests, inhabited by buffaloes, bears, lynxes, elks, wild asses, wild boars, chamois, ermines, and beavers. It has valuable mines of gold, silver, and copper ; also of iron, quicksilver, lead, zinc, and antimony ; and produces great quantities of fossil salt. *Klausenberg*, or *Kolosvar*, the capital of Transylvania, on the Szamos, contains 20,000 inhabitants. *Maros Vasarhely*, or *Neumarket*, on the Marosch, has several fine buildings ; among others, is the palace of Tekeli, with a library of 60,000 volumes. Population, 13,000. *Hermannstadt*, with 21,000 inhabitants, and *Kronstadt*, with 30,000, are the other principal towns.

Agriculture is the principal occupation of the inhabitants, but it is still carried on in a very primitive manner. The trade is in the hands of the Greeks and Armenians ; and the importation probably exceeds the exportation. There are no manufactures of importance. Population, 2,000,000.

In 1004, Transylvania was subdued by Stephen, king of Hungary, who introduced Christianity. Some centuries afterwards, it was divided between two rival factions, one of which was supported by the house of Austria, and the other by the Ottoman Porte ; and in 1606, the successors of the latter power obliged the court of Vienna to acknowledge the independence of Transylvania. It was ceded to the Austrians, by the treaty of Carlowitz in 1699, and all claims were settled by the peace of Belgrade, in 1740.

3. The Military Frontiers. This country extends along the Turkish frontiers from the Adriatic to Galicia, and surrounds the provinces of Croatia, Slavonia, Hungary, and Transylvania. The superficial extent is 18,400 miles. The Slavonians form the largest proportion of the inhabitants, amounting to above 800,000. There are also 122,000 Wlaches, 80,000 Magyars and Szeckhelyi, 9,000 Germans, 1,500 Klementins, and about 1,500 Greeks, Jews, and Gypsies. There is no nobility, nor any privileged class among the inhabitants of the frontiers, which yet form a complete military state, having many points of resemblance to the feudal institutions of the middle ages. The frontier government was originally created to protect the empire, of which it forms a part, against the invasion of barbarians, and in later times to form a *cordon sanitaire* against the plague. All landed property is held by a kind of fief, on condition of military service in peace and war. Only such boys as are not fit for the service are allowed to engage in any other occupation than that of arms. There are 4 divisions of the military frontiers, containing in all 11 towns, 24 boroughs, 4 fortresses, and 1,995 villages.



Guard of Military Frontier.

4. Dalmatia. This kingdom is bounded north by Hungary, east by Bosnia and Rumelia, and south and west by the Adriatic. It lies between $42^{\circ} 15'$ and $44^{\circ} 25'$ N. lat., and contains about 5,800 square miles. The interior is intersected by high mountains. The principal rivers are the *Zemagna*, the *Cettina*, the *Narenta*, and the *Kerka*. On the latter river, the whole course of which is 60 miles, are several fine cascades. There are numerous lakes well stored with fish. The whole coast is indented with creeks and bays, and skirted by a great number of islands. The bay of *Cattaro* forms the best harbor in the Adriatic.

The climate of Dalmatia is very mild, and, on the whole, like that of the south of Italy ;

but the marshes on the coast render the air insalubrious. Snow and frost are almost unknown in the valleys. The winter is rainy. The soil is mostly calcareous, dry, and barren, and but in few places fit for cultivation. This country has quarries of marble and gypsum, and mines of iron-stone. Wolves are found in the forest, and locusts occasionally infest the country. *Zara*, the capital, is built on a neck of land separated from the continent by a deep ditch. It has two seminaries, a theatre, and a good harbor. Population, 7,400. *Spalatro* is a fortified town with 9,000 inhabitants. *Brazza*, on an island of the Adriatic, produces a great quantity of wine. *Ragusa* was formerly distinguished for its trade and manufactures, but at present contains but 6,000 inhabitants. *Cattaro*, on the gulf of the same name, is so surrounded and overhung by rocks, as for several hours in the day to be completely in their shade. It is well fortified, and exports considerable wine and oil.

Agriculture is very much neglected, but wheat, grapes, olives, figs, almonds, &c., are produced in some abundance. A kind of coarse cloth is manufactured from the threads of broom, and employed in covering bales of merchandise. In all the islands along the coast, fishing is a common occupation; anchovies and mackerel are abundant. The population is about 310,000. The majority of the inhabitants belong to the Catholic and the United Church; of the rest, 61,164 are Greeks. Education is in a rude state. Dalmatia was once subject to Venice, but, towards the end of the 15th century, was seized by the Turks. In 1797, it fell to the share of Austria, which in 1805 surrendered it to Napoleon. In 1813, the Austrians reconquered Dalmatia, and it now constitutes a part of their maritime possessions.

Inhabitants, Manners, &c., of the Hungarian States. Hungary has been called "Europe in miniature;" and it contains communities of 12 distinct people or nations. The principal are the Magyars (or Hungarians), Slovaks, Bohemians, Germans, Greeks, Armenians, Wallachians and Gypsies. The inhabitants of Transylvania and Dalmatia are also various. In Hungary the people are not tall, but they are active and muscular. The women are more dis-



Hungarian Girl.



Hungarian Peasant.



Hungarian Woman.

tinguished for beauty than the Austrian females. The titled nobility is the same as in Austria. The condition of the peasantry is better than in Russia or Poland, though they have too much dependence on the nobility.

The costumes are various and picturesque, but the higher classes follow somewhat the French and German fashions. The common dress is a fur cap, a close coat girded with a sash, and a cloak, from which the right arm is free. This, with the *moustache* on the upper lip, gives



Man of the Frontiers.



Hungarian Peasant.

the Hungarian a military appearance. The females dress in black, and wear long sleeves. The peasants wear a *calpac*, or felt cap, and a large woolen cloak. They carry a wallet on their shoulders, and generally have a hatchet. Thus dressed and equipped, they generally sleep, when traveling, in the open air. In Transylvania, the peasantry have nearly the ancient Roman dress, that was worn by their class ; a tunic of white cloth belted to the waist, and reaching to the knee ; trowsers in wide folds descending to the ankles, and sandals on their feet. Various languages are in use in Hungary, but the most general is the Hun-

garian ; a dialect, it is supposed, of the Scythian and the Latin. The Latin is very general, and much public business is transacted in it. It does not, of course, retain all its classical purity among a people more given to arms than arts ; and the memorable shout of the Hungarian nobility, *moriamur pro rege nostro Maria Theresa*, had more of heroism than latinity. In Transylvania, as in Wallachia, the language is a dialect of the Latin.

There is little that is peculiar in Hungary ; the villages are composed of small houses, with ends to the street, and all, in point of shape, exactly alike. In Transylvania, it is common in some places to have a homely sentiment written over the door ; as " May we never want bread, nor the freedom to enjoy our domestic comforts."



Man of Upper Hungary.



Hungarian Girl.

Hungary is blessed with abundance ; but commerce affords few outlets to her productions. In Dalmatia, on the contrary, some of the inhabitants at times are compelled, for several months in the year, to subsist on juniper berries, and wild roots. Frogs and snails are eaten in Hungary ; and rice is common there, and in Transylvania. A favorite dish with the common people is an omelet mixed with boiled prunes ; in other respects the diet is not peculiar. The wines of Hungary are excellent ; some

of the sweet wines are equal to the Monte Pulciano, and the Tokay is generally admitted to be the best wine in Europe. The grapes are not pressed, but the juice drips into vats from nets suspended above. The true Tokay is produced but in a small district ; and it bears an enormous price. As its excellence is much increased by age, it has been sometimes sold for

100 florins a bottle ; and ten florins is a common price for a bottle containing about a pint. The Tokay has in its favor " infallible " testimony, for the Pope himself, at the Council of Trent, was sustained by the council, in pronouncing it to be the best of wines. Considerable quantities of rosoglio are consumed, and also of Maraschino, a cordial made of acid cherries. These are made chiefly in Dalmatia, where there is distilled also a spirituous liquor, from the arbut tree. The Dalmatians are given to excess in the use of spirituous liquors. Tobacco is universally used in smoking, and as snuff.

The chief maladies are gout, and the diseases occasioned by exhalations from marshes. In Lower Hungary, epidemic disorders are not uncommon.

In Hungary there are inns, but they afford little beside shelter ; and the traveler has frequently to purchase his provisions at the large towns. The post coaches are often but carts, and generally the facilities for traveling are few.

The Hungarians are distinguished for a military spirit, but they are social and hospitable, though proud and irritable. The two great pursuits are agriculture and arms, and there are few trades. In a people so variously compounded, or rather in a country with so many distinct races, the character and customs must be various.* Hungary may be considered the home of the Gypsies, but even here, that singular race have the same restless, wandering disposition, that distinguishes them elsewhere. They are the traveling tinkers and musicians ; and when they have a settled or temporary residence, it is, in summer, a cave or a tent, and in winter, a hut like the den of a wild beast, from which light is excluded. The most usual trades followed by the Gypsies, are those of black and white-smiths, though they act as farriers, carpenters, and turners. They are universally the executioners and hangmen. The Transylvanian character is not widely different from the Hungarian, though less national, and the manner of life approaches more to that of the orientals. In describing the character of the various people composing the Austrian empire, geographers have seldom attempted to give any but the most general views. There are more athletic amusements than in Austria, and dancing is equally common, though with a greater variety of modes. Combats of animals, hunting, and the usual European games are common. In Hungary the peasants who cultivate the earth are by no means enlightened. More of them, however, can read and write than those of the same class in some parts of Germany ; and the schools are sufficiently numerous to scatter more knowledge. The Catholics have 3,561 teachers, 1 university, and several colleges. The united Greeks and Armenians have 382 schools ; the Greeks, 1,226 schools and 2 gymnasiums ; the Calvinists, 1,600 teachers and 3 colleges ; the Lutherans, 1 lyceum, 1 college, and 629 teachers, and the Jews 100 teachers. There are, besides, agricultural schools and schools of industry.

The arts are not successfully cultivated except music. The national music, however, is practised almost exclusively by the Gypsies, who have produced several eminent artists in this department. Oeser, the painter, and Mind, the *Raphael of cats*, were natives of Hungary.

* "The Hungarian incontestably possesses the most fiery temper, and is completely qualified both for uncommonly good and bad actions. The Slowack is much cooler, and still more so the German ; then follows the Wallachian and Servian, and last of all, the Ruthenian. The poor Jew is totally destitute of courage, and may be frightened with an empty meal-sack beyond the Carpathian mountains. The Hungarian soon forgets injuries, the German later, but the Slowack and Wallachian, never. The Ruthenian is continually quarreling, the Jew is for ever involved in lawsuits, but is ready to be reconciled, as soon as danger threatens his family or one of his nation. The Magyar is proud of being mounted on a fine horse ; the Slowack, when he is permitted to converse rather familiarly with people of high rank ; the German, when he may carry a cane in his hand (as judge of his village) ; the Wallachian, when he can exhibit a shining hatchet ; the Ruthenian, when he is admitted to the honor of clerical orders ; the Jew, when he has got farmers on his rent-roll ; and the Gypsy, when he is dressed in scarlet breeches. When the Magyar is in liquor, he is melancholy, nay, even careless of his life ; the Slowack pretends to be witty ; the German is talkative and very tiresome ; the Wallachian is quarrelsome, and ready to shed blood ; the Ruthenian mutters inwardly, and is reserved and prone to revenge. When the Magyar or Slowack is going to cheat a person, he praises him ; the German offers him his services ; the

Wallachian protests to be his friend ; the Ruthenian feigns to be stupid ; the Servian is submissive ; the Jew promises mountains of gold ; the Gypsy jokes. Whenever a quarrel arises, the German screams and threatens ; the Croat swears and curses ; the Ruthenian spits at his adversary, and seizes him by his hair ; the Slowack makes use of his fists, and boxes his enemy ; the Magyar cudgels him till blood begins to flow ; the Gypsy assails his face with his nails ; the Wallachian strives to strike him dead, and the Jew screams and takes to his heels. When the Magyar swears, he always takes God to witness, while the Slowack calls upon the devil to take him. The cursing Magyar, Wallachian, and Servian use an immense variety of abusive names ; the Slowack hurls a thousand thunderbolts at his opponent, and the German ever calls the devil to his aid. The Magyar preferably appropriates to himself, without paying for it, (i. e. steals,) cattle, especially horses, then oxen ; the Slowack, eatables ; the Slavonian, iron and leather utensils ; the Wallachian, money ; the latter does not hesitate murdering a traveler for the sake of a few shining buttons, which he takes for gold ; while the German, without discrimination, pilfers whatever he can get. When the Slowack abstains from stealing, he does it because he believes theft to be criminal ; the Ruthenian from fear of punishment ; the Magyar, because he is not in the humor for it ; and the German, from want of an opportunity." — *Foreign Review*.

The literature of Hungary has added little or nothing to the general stock of European taste or knowledge. In Hungary there is no established religion, according to the letter of the law, but the Catholics are the most numerous sect. There are Lutherans, Calvinists, Jews, and others. The Gypsies are without a creed. The Jews pay a tax called *tolerance*. In Transylvania, there are Greeks, Catholics, various sects of Protestants, Jews, and Unitarians.

In Transylvania, as in other districts in that vicinity, there is a belief in vampires, or of demons, that animate the bodies of the dead, which come forth to steal away the life of the living, by sucking their blood. The victims are often supposed to be the nearest friends of the deceased. It used to be the custom, when a vampire was supposed to be the tenant of a particular new-made grave, to open it, and examine the corpse; if this was found with ruddy cheeks, and fresh and undecayed, it was adjudged a vampire and burnt. The Wallachian population, to show affection for their departed friends, moisten their graves with wine. They have also the custom, which prevails in many countries, of interrogating the dead; saying to a deceased friend, that he was so fortunately situated with his wife, children, and friends, that he should not have died. They say to him that he acted foolishly, and call upon him to change his mind. Hungary is an hereditary monarchy. The king has great power, but there is a Diet, which has its influence in the State. In religious matters, the king has papal authority. Transylvania is a limited monarchy; and the king, like the king of Hungary, is the Emperor of Austria.

Hungary, or Pannonia, as it was called by the Romans, was invaded and subdued by the Magyars, a Caucasian tribe, towards the end of the 9th century; about which time Christianity was introduced. The kingdom was especially aggrandized during the administration of Matthias, who took possession of Vienna and many of the neighboring provinces, and died in 1490. After his death Austria recovered the conquered provinces, and began to look to the prospect of succession to the Hungarian crown. In 1526, the greater part of Hungary was conquered by the Turks, in whose hands it remained until the peace of Carlowitz, in 1699. From this period the country has remained united to the Austrian Empire.

CHAPTER XXIV. GERMAN AND POLISH PROVINCES OF AUSTRIA.

Divisions. This part of the Austrian Empire consists of 1. the Archduchy of Austria; 2. the Duchy of Stiria; 3. the Kingdom of Illyria; 4. the Tyrol; 5. the Kingdom of Bohemia; 6. the Margraviate of Moravia and Austrian Silesia; 7. the Kingdom of Galicia.

1. *Archduchy of Austria.* This country is bounded north by Bohemia and Moravia, east by Hungary, south by Stiria, and west by Bavaria. It contains 15,000 square miles, and a population of 2,400,000. It lies upon the Danube, which rises in Bavaria and flows easterly into Hungary. The Enns, one of its branches, divides the country into Upper and Lower Austria. A branch of the Noric Alps, called the Scemmering Heights, separates it from Stiria. Another range, called the Kahlenberg, extends from the source of the Drave toward the Danube. Other eminences, of considerable elevation, are scattered over the country. The rivers vary in color at different seasons, except the Danube, which is always yellow. The others are of a beautiful lively green in the spring. The lake of *Gmunden* is celebrated for the fine scenery of its shores, and the salt manufactured from its waters and the neighborhood, which supplies the whole of Austria. There are many other lakes. The climate on the mountainous borders of Stiria and Bohemia, is cold, with boisterous winds and a short summer; the ground is covered with snow from October to March. On the banks of the Danube the heat of summer and autumn is excessive. The soil is generally good. Upper Austria abounds in fossil salt.

Vienna, the capital, is pleasantly situated upon the Danube, in the midst of a fertile and picturesque region. It consists of the city proper, which is small and surrounded with walls, and 34 suburbs, whose spacious streets and elegant edifices form a striking contrast with the narrow streets and mean buildings of the former. Vienna contains 18 public squares, 20 monasteries, 5 theatres, 50 churches, numerous scientific and charitable institutions, palaces, &c., and 430,000 inhabitants. The finest promenade is the Prater, on an island in the Danube, which the rich equipages, the gay crowd, the fine walks, and the various amusements combine to render unrivaled in Europe. The imperial palace is a splendid, but irregular building, containing numerous treasures of art, and a fine library of 300,000 volumes.



Vienna.

In Vienna and its environs are the greatest number of botanical gardens of any place of equal extent in the world, and several of them are unrivaled by any similar establishments. Pleasure is the great occupation of the inhabitants of Vienna. In the environs are numerous parks, and pretty towns. Schoenbrunn and Luxemburg are favorite summer residences of the emperor.



Fireman of Vienna.

Other towns in the Archduchy of Austria are *Neustadt*, containing 12,000 inhabitants, with flourishing manufactures, and connected with Vienna by a canal; *Lintz*, with 25,000, containing extensive woollen manufactures, and connected with the salt works of Gmunden by a railroad; *Steyer*, 10,000 inhabitants, noted for the excellence and cheapness of its cutlery, which is exported to all parts of Europe, and *Saltzburg*, with 14,000 inhabitants, with a cathedral, archbishop's palace, several literary institutions, and manufactures.

Agriculture is generally well managed. Wheat, barley, oats, rye, peas, &c. are cultivated. In Lower Austria the vine is extensively cultivated. Manufactures are pretty active, and Vienna employs 80,000 artificers in different fabrics. The chief articles are woollen, cotton, silk, leather, iron, steel, glass, porcelain, paper, toys, and furniture. A railroad extends from Mauthausen on the Danube to Budweis on the Moldau, 70 miles in length, thus connecting the Elbe with the Danube. Another great project has received the approbation of the Austrian and Russian governments; it contemplates the connexion of Vienna with Warsaw, in Poland, by a railroad. The Vienna canal extends from Vienna to Neustadt, 40 miles, and it is proposed to continue it to Trieste.

2. *Duchy of Stiria*. This province is bounded north by Austria, east by Hungary and Croatia, south by Carniola, and west by Carinthia and Upper Austria. It is 125 miles in length and 70 in breadth. It is divided into Upper and Lower Stiria, and contains 8,380 square miles, and a million inhabitants. *Upper Stiria* is mountainous; many of its elevations are of great height. *Lower Stiria* is more level. The rivers flow into the Danube and Drave. The level parts are fertile; cattle are pastured upon the mountains, and these regions abound in wild animals. Minerals are abundant, as iron, silver, lead, and copper; the iron mines of Eisenarz and Vorderberg are very productive. Fossil salt is also found here. Hot baths and medicinal springs are common in Lower Stiria. *Graetz*, a well-built town, and the capital of Stiria, contains a university, with a rich library, and numerous other institutions for education, among which the *Johanneum*, or college founded by the Archduke John, is the principal. Its manufactures of cotton goods, hardware, silk, &c., are extensive. Population, 50,000.



Austrian Woman.

3. Kingdom of Illyria. This kingdom is bounded north by Austria, and Stiria, east by Croatia, south by the Adriatic, west by the Lombardo-Venetian Kingdom and Tyrol. It contains 11,000 square miles, and 1,357,000 inhabitants. The country is mountainous; the rocks consist of primitive limestone, hollowed out into a vast number of grottoes. There are said to be 1,000 caves in Illyria, among which that of *Adelsberg* is celebrated for its dimensions and crystals. It is thought the whole ridge of mountains intersecting the country is hollow; many rivers sink into the ground and appear in other places among them. The *Save*, *Laybach*, *Gurck*, and *Isonzo*, water different parts of the kingdom. The lake of *Zirknitz* is a great curiosity; it is 8 miles long, 4 broad, and is completely surrounded by steep mountains and forests. In June its waters entirely disappear, through holes in the bottom of the lake, which is then ploughed and sown. In 3 months' time, an abundant crop of hay and millet is produced; the deer come down from the mountains and feed in the pastures. In September, the waters rush violently back, and fill the lake; it then abounds in fish. The waters have been known to fluctuate 3 times a year, and in other seasons not at all. The climate in the mountains is rigorous but healthy. On the coast it is warm, and vegetation is luxuriant. In other parts the vine and olive flourish. Minerals are abundant. Iron, lead, and copper are exported. The quicksilver mines of *Idria* are the richest in Europe, and yield annually 640,000 pounds of quicksilver, and 378,000 pounds of cinnabar.

Illyria consists of 2 political divisions, the government of *Laybach*, including *Carinthia* and *Carniola*, and the government of *Trieste*, comprising *Istria*; these are subdivided into 7 circles.

Trieste, situated upon the northern extremity of the Gulf of Venice, is the principal commercial town in the empire. Including the immediate neighborhood, with its beautiful gardens, vineyards, and country seats, it has a population of 76,000 souls. The commerce of *Trieste* has rapidly increased since it has been declared a free port. In the vicinity is *Aquileia*, now a small village, once the centre of commerce between the northern and southern parts of the Roman empire, and a large city with 100,000 inhabitants.

Laybach, formerly capital of the duchy of *Carniola*, and at present of the kingdom of *Illyria*, has an active trade, and its manufactures are extensive. A congress of European sovereigns was held here in 1820. Population, 19,000. *Idria*, in the same government, derives importance from its rich mines of quicksilver. Population, 5,000. *Clagenfurth*, a busy manufacturing town, with 13,000 inhabitants, was the capital of the former duchy of *Carinthia*; *Rovigno*, with a good harbor, has an active commerce, and contains 10,000 inhabitants.

One of the most perfect and extensive works of the Romans is at *Pola*, about 40 miles from *Trieste*. It is an amphitheatre, with 3 floors and rustic arcades. In height it is 97 feet, and in length 416. The seats occupy but one side, and are formed on the declivity of a hill. It is entire in its whole circuit, and is capable of accommodating 18,000 persons. The chief productions of *Illyria* arise from the minerals above mentioned, the cultivation of the vine and olive, and fishing of anchovies in the Adriatic.

4. The Tyrol. This district is bounded north by Bavaria, east by Austria, south by the Lombardo-Venetian Kingdom, and west by Switzerland. It contains 10,880 square miles, and 900,000 inhabitants. It is very mountainous and much resembles Switzerland, being traversed by the *Rhetian Alps*, some of whose summits belong to the highest European mountains. The *Ortlerspitz* reaches the height of 12,800 feet. There is a lower chain called the *Brenner*, or Burning Mountain, from its glaciers, which appear in the sunshine like a blaze of light. Many of the ridges are crowned with sharp pinnacles of granite, resembling obelisks; some are rent into deep and frightful chasms, and others covered with eternal snow. Numerous mountain torrents water the country, and find their way to the Rhine, Danube, Po, and the Adriatic. The largest river is the *Inn*, which rises in the canton of the Grisons in Switzerland, and receiving numerous mountain streams in that country, falls into the Danube at *Passau*. The *Adige* rises in this country and passes through the Venetian territory into the Adriatic. The *Drave*, *Lech*, *Iser*, and *Iller* rise in this country.

The mountains have the climate of Switzerland; the snow and torrents block up the villages, and confine the inhabitants within doors in winter. The soil produces hemp, flax, tobacco, and grain; the vine is reared in some parts. There are rich mines of silver, lead, copper, iron, and salt; precious stones to a considerable amount are obtained here, as agates, cornelians, rubies, amethysts, emeralds, and chalcedonies. The inhabitants are industrious, and, besides the occupation of hunting and agriculture, employ themselves in manufacturing boxes, cases of instruments, toys, &c., which are exported even to America. The rearing of cana-

ry birds is a considerable branch of industry ; the breeding of silkworms is confined to the southern parts.

Innsbruck, the capital, has an active trade, and a seminary of learning. Population, 14,000. *Botzen*, or *Bobzano*, has several manufactures and 4 annual fairs. Population, 8,080. *Rooveredo*, on the Adige has manufactures of silk. Population 8,000. *Riva*, on the Lago & Garda, has manufactures of iron and jews-harps, and a trade in corn. Population, 3,097. *Trent*, on the Adige, is famous for a council held here in the beginning of the Reformation. Population, 15,000.

5. *Kingdom of Bohemia*. This country is bounded north by Saxony and Silesia, east by Sile-



Bohemian Woman.



Bohemian Peasant.



Bohemian Gypsies.

sia, Moravia, and the county of Glatz, south by Austria, and Bavaria, and west by Saxony and Bavaria. It contains 20,400 square miles, and 4,600,000 inhabitants. High mountains inclose it on all sides ; the different ranges are called the *Sudetic*, *Moravian*, *Giant*, *Woody*, and *Erzgebirge* mountains. The whole country resembles an immense concavity or basin, considerably elevated above the level of the sea. The *Elbe* receives all the waters of this great basin, and bursting through the *Erzgebirge* mountains in the north, passes into Saxony. The climate is delightful. Italy itself has not a more pleasant spring, and summer and winter are only an agreeable variety of temperatures ; the mountains shut out

every wind, and there are no lakes or marshes to infect the air. The soil is equal to the climate, and yields abundantly almost every production of the temperate region. The mountains are covered with pines, and other trees, and in the interior are extensive forests of oak. In the mountains are wild boars, hares, lynxes, bears, wolves, foxes, badgers, otters, beavers, and martens. Wild fowl are in plenty. Mines of gold, silver, iron, tin, copper, cobalt, and coal, exist here. Marble, and many sorts of precious stones, are also produced. The river *Moldau* furnishes beautiful pearls.

Prague, the capital of Bohemia, is a large and flourishing city, situated on both sides of the *Moldau*, over which there is a splendid bridge of 16 arches. It contains 48 churches, 16 monasteries, 9 synagogues, a number of elegant palaces, among which

are an imperial castle, and the palace of Wallenstein, and other public buildings. It is strongly fortified with very extensive works. The university is one of the oldest, and was long one of the most celebrated, in Europe ; its library contains 100,000 volumes. Prague is the centre of Bohemian commerce, and the depot of the active manufacturing district in which it is situated. Population, 115,000, of which 7,500 are Jews. It is celebrated in history as the residence of Huss, the Bohemian reformer, and the birthplace of his disciple, Jerome.

Reichenberg, with 12,000 inhabitants, a flourishing town, with extensive manufactures of cotton and woolen ; *Budweis*, 8,000, with an active trade ; *Joachimsthal*, 4,000, noted for its

mines of silver and cobalt, and the centre of a mining district, which furnishes lead and tin; *Pilsen*, 10,000 inhabitants, deriving an active trade from its woolen manufactures, and the mines of iron and alum in its vicinity; and *Carlsbad*, *Toeplitz*, and *Seidlitz*, known for their mineral waters, are the other most important Bohemian towns.

The agricultural products are buckwheat, millet, pulse, saffron, ginger, &c., but hops are the staple article, and their excellence is unsurpassed. The vine is cultivated, but to no great extent. Manufactures are flourishing, and comprise linen thread, and cloth, lace, ribands, silk, paper, cotton cloth, stockings, gloves, leather, iron, brass, tin, cutlery, and jewelry.

Bohemia was occupied by German tribes in the 4th century. An army of Sclavonians subdued the country in the 6th century. The first sovereign known by name was *Przemislas*, a peasant, whom the princess *Libussa* married in 632, and raised to the throne. The sovereigns were at first called dukes, but the title of king was granted in 1061, by the Emperor *Henry the Tenth*. Bohemia was united to the German empire in 1310, but separated from it in the next century. In the 17th century it became an appendage to the Austrian monarchy.

6. *Margraviate of Moravia and Austrian Silesia*. These provinces are bounded north by Bohemia and Prussian Silesia, east by Hungary and Galicia, south by Austria, and west by Bohemia. They contain 10,100 square miles, and 2,300,000 inhabitants. Half the country is covered with mountains and forests. In the level parts are bogs, lakes, and morasses. A number of small streams here unite and form the *Morava*, which flows into the Danube. In the mountainous parts, the climate is so cold, that stoves are used all the year; yet the air is salubrious. Game and venison are plentiful, and the country had once mines of gold, which are now exhausted.

Brunn, the capital of Moravia, has a citadel on an eminence 806 feet high. The city is well built, and the public edifices are splendid. Population, 42,000. *Olmütz*, with 18,000 inhabitants, is noted as the prison of *Lafayette*. The village of *Austerlitz*, is 12 miles from *Brunn*, and is celebrated for one of *Napoleon's* greatest victories. *Troppau*, in Silesia, has 14,000 inhabitants, and is famous for a congress held here, in 1820. The inhabitants raise corn sufficient for their own subsistence and for exportation. Hemp, flax, fruits, and vegetables, are also largely cultivated. Moravia was part of a great kingdom partitioned, in the 10th century, by the surrounding powers. Since the 11th century, it has been for the most of the time attached to Bohemia. Silesia is a part of the duchy of that name, the most of which was assigned to Prussia, in 1742.

7. *Kingdom of Galicia*. This country is bounded north by the republic of *Cracow* and the kingdom of *Poland*, east by *Russia*, and south and west by the *Hungarian States*. It contains 33,000 square miles, and 4,950,000 inhabitants. The *Crapack* or *Carpathian Mountains* divide it from Hungary, and send off several branches into this country, but the greater part declines gradually from the highlands into an immense plain.

The *Dniester* rises on the north of the mountains, and passes southeasterly into *Russia*. The *Pruth* also rises here, and flows in the same direction. The head streams of the *Vistula* and *Bug* water the northern and western parts. The soil in the north and west is only moderately



Peasant of Moravia.



Mines of Wieliczka.

fertile, and in some parts marshy ; in the east and south, it is highly productive. In the department of minerals, this region is distinguished for its fossil salt. The mines of Wieliczka are the most celebrated in the world. They extend above a mile under ground, and are between 700 and 800 feet in depth.* They employ 900 miners, and yield annually 300,000 cwt. of salt. There are also mines of silver, iron, copper, lead, and sulphur.

Lemberg, the capital of Austrian Poland, or the kingdom of Galicia, is a large and well-built city, with a population of 75,000 souls, among whom are 20,000 Jews. It contains a university and other literary institutions, and is the residence of Roman Catholic, Armenian, and Greek archbishops, and of a superior Rabbi. Its woolen and cotton manufactures are important, and it carries on an active trade with Russia, Turkey, &c. *Brody*, the second city, and the most important commercial town of Galicia, has 25,000 inhabitants, of whom 20,000 are Jews. *Jaroslav* has some manufactures belonging to the government. Population, 9,000. *Bochnia* has salt mines, furnishing nearly 250,000 cwt. of salt. Population, 6,100.

Agriculture is much neglected. The articles cultivated are corn, flax, tobacco, and vegetables. The forests furnish abundance of wood and potash. The Jews commonly buy the harvest of the farmer while growing in the field. The manufactures consist of broadcloth and cordage. There is little trade except in the natural productions of the country. Galicia formed a part of the ancient kingdom of Poland, and was acquired by Austria at the partitioning of that country, as related in the history of Poland.

Inhabitants, Manners, &c., of Austria. The Austrians are of a German stock, but darker



Peasant of Galicia.

Woman of Galicia.

Gentleman of Galicia.

in complexion, and more animated, than the Northern Germans ; they are somewhat mixed with Hungarians, Bohemians, and Italians. The Bohemians have a resemblance both to the Ger-

* At the foot of the last ladder, the stranger is received in a small, dark cavern, walled up perfectly close on all sides. To increase the terror of the scene, it is usual for the guide to pretend the utmost alarm on the apprehension of his lamp going out, declaring that such an accident must be attended with the most fatal consequences. When arrived in this dreary chamber, he puts out his light, as if by accident ; but, after some time, catches the stranger by the hand, and drags him through a narrow creek into the body of the mine, when there bursts at once upon his view a little world, the lustre of which is scarcely to be imagined. It is a spacious plain, containing a whole people, a kind of subterranean republic, with houses, carriages, roads, &c. This is scooped out of one vast bed of salt, which is all a hard rock, as bright and glittering as crys-

tal ; and the whole space before him is formed of lofty, arched vaults, supported by columns of salt, and roofed and floored with the same, so that the columns, and indeed the whole fabric, seem composed of the purest crystal. There are several lights in this place continually burning, for the general use ; and the blaze of those, reflected from every part of the mine, gives a more glittering prospect than anything above ground can possibly exhibit.

Were this the whole beauty of the spot, it were sufficient to excite astonishment and admiration ; but this is only a small part. The salt (though generally clear and bright as crystal) is, in some places tinged with all the colors of precious stones, as blue, yellow, purple, and green ; there are numerous columns, wholly composed of these kinds, and they look like masses of rubies, emeralds

men and the Hungarians. The Austrian nobility are titled as princes, counts, and barons. There are seven knightly orders, including one for ladies of princely or ancient noble families. The dress is generally that of Germany, though French fashions are common in the cities. In Bohemia, the general poverty of the peasants is apparent in their dress, which is often little better than tatters. In Austria, the German is the general language; in Bohemia, the Slavonic. The French is generally understood by the higher classes in Austria.

Architecture has not attained to much excellence in the Austrian States. Some of the cities, and especially Vienna, have many imposing edifices, and the mansions of the nobles are large, though not in good taste; the dwellings of the peasants are small and mean. There is little peculiar in the common food, except the frogs, snails, and birds, such as sparrows, hawks, and magpies, that are constantly seen in the markets of large towns. To Vienna, frogs are brought in quantities of 30,000 or 40,000 at a time, and kept in conservatories. The livers of geese are esteemed great delicacies. In Bohemia there is little wine, but much beer is used, which is made there of an excellent quality. The most common diseases are fevers, and the general maladies that prevail in the middle latitudes of Europe. The expense of traveling by post is equal to that in France, but the inns, roads, and vehicles are bad; the system of passports and custom-houses is very strict and annoying.

The Austrians are more cheerful and affable than the Germans, and their capital is celebrated for its splendor and various amusements. The higher classes are fond of show. Quarrels are rare, and years pass without the occurrence of a capital execution. The people are, of course, distinguished for self-command and an even temperament. The Austrians are ingenious in mechanism; but their greatest efforts in this way are not of practical utility. Automaton chess-players, and a head imitating the sounds of the human voice, are Austrian inventions. In the United States and in Great Britain, the same mechanical turn of mind is devoted to projects of general utility, and adds new facilities to science, commerce, and manufactures. It has been noted of the Austrians, that they take no interest in public affairs, and seldom converse upon them. From the time of Maria Theresa, however, with few intervals, it has been the care of the government to prevent the subjects from speculating too curiously upon the right and the expedient in politics; and the reason why the Austrians do not now converse on public affairs, is that they are not permitted to feel that interest which comes from taking a part in them. The Austrians have been called sensual; and it is certain, that they are more fond of the pleasures of the table than the other Germans.



Woman of Upper Austria.

The Tyrolese are hardy, brave, and of great simplicity of character. They are practically republicans, respecting little the distinctions of wealth or rank, and defending their rude mountains with a courage and constancy seldom found in a people dwelling on the most fertile plains. They are devout Catholics, but too kind to be intolerant. Their country is too barren to support them by agriculture alone, though this is followed with great skill and perseverance. Many breed canary birds, and wander into foreign countries to sell them. Almost every one is an artisan or manufacturer.

amethysts, and sapphires, darting a radiance which the eye can hardly bear, and which has given many people occasion to compare it to the supposed magnificence of heaven. Besides the variety of forms in those vaults, tables, arches, and columns, which are framed as they dig out the salt, for the purpose of keeping up the roof, there is a vast variety of others, grotesque and finely figured, the work of nature; and these are generally of the purest and brightest salts. The roofs of the arches are, in many places, adorned with salt, hanging from the top in form of icicles, and having all the hues and colors of the rainbow. The walks are covered with various congelations of the same kind; and the very floors, when not too much trodden and battered, are covered with globules of the same sort of materials.

In various parts of this spacious plain, stand the huts of the miners and families, some single, and others in clusters, like villages. They have very little communication with the world above ground, and many hundreds of people are born and live all their lives there. Through the midst of this plain lies a road, which is always filled with carriages, loaded with masses of salt out of the further part of the mine, and carrying them to the place where the rope belonging to the wheel receives them; the drivers of these carriages are all merry and singing, and the salt looks like a load of gems. A great number of horses are kept here, and, when once let down, they never see daylight again; but some of the men take frequent occasions of going up, and breathing the fresh air.

They execute many works in wood with great neatness. Shops and houses are framed, the pieces numbered, and transported to the lake of Constance, and from thence to different countries. Many of the Tyrolese follow the adventurous life of hunters, but all these employments are insufficient to support the population, and it is supposed, that 30,000 leave the country yearly. At six years of age, the Tyrolian often quits his country, and sets out for a fair in Bavaria, where he gets employment in herding geese or cattle.

The Bohemians are hardy and cheerful; they have great musical talents, and are found as musicians all over Germany; they have a disposition to travel, and visit in all countries, though they often return to their own. They are inclined to superstition, and in no place is the reverence to the images of saints carried so far as in Prague; the bridge is lined with an avenue of statues, round which numerous people kneel, or prostrate themselves, in the most humble postures. The peasantry have the usual faults that spring from an unequal condition; for every landholder is a master, and every peasant in effect a slave.

Austria has many schools, of every grade; but all are public; and of course the institutions are not so well conducted as in countries where rival institutions are permitted in competition. The higher classes are intelligent, especially at Vienna; and, of the people at large, the greater part can read and write. There are universities at Vienna, Prague, and Pest, and lyceums at several towns. There is a medical school at Vienna, and an academy for painting, sculpture, architecture, and engraving. The Austrian States have not added much to the literature of Europe, nor have any of the departments of science been much advanced by them. The present emperor is known to make a distinction between good scholars and good subjects. The arts of sculpture, painting, and even architecture, are in a humble state, but that of music is more generally and successfully cultivated than in any other country. Haydn and Mozart are names associated with harmony.

The Catholic is the established religion of Austria, but all others are tolerated. There are, besides Catholics, Lutherans, Calvinists, Jews, &c. In Bohemia, many of the ecclesiastics are said to be dissolute. Austria is an absolute monarchy, in which the power of the crown is impregnable. The censorship of the press is strict, travelers are subjected to annoyance, and all means are taken to secure the dependence of the people on the government, and to prevent all innovation or discussion of political institutions. Bohemia, as well as Hungary, is a distinct kingdom, and limited monarchy, but under the immediate government of the emperor. In the Tyrol, the four estates, including the peasantry, are convened to grant supplies for the expenses of government. The laws in Austria are mild, and the administration of them just. The civil code, introduced in 1811, is considered good.

8. *History.* Austria began to acquire significance in the 12th century, when it was made a duchy. In the following century, the house of Hapsburg laid the foundation of the Austrian greatness. New territories were subsequently acquired, and the electoral crown of Germany was obtained by this dynasty in 1438. Austria was raised to an archduchy in 1453, and, with the acquisition of Bohemia and Hungary, in 1526, it was allowed the rank of a European monarchy. It was erected into an empire in 1804, and though much abridged of its territory and influence, by the conquests of Napoleon, its losses were subsequently retrieved, and it is now, both in name and effect, one of the chief powers of Europe.



Juniper.

CHAPTER XCV. PRUSSIA.



1. *Boundaries and Extent.* This kingdom is composed of two distinct portions of territory, separated by the German States. They are bounded north by the Netherlands, Hanover, Mecklenburg, and the Baltic Sea; east by Russia and Poland; south by Austria, Saxony, several of the German States; and west by the Netherlands. The northern extremity is in $55^{\circ} 46'$, and the southern in 49° north latitude. The eastern extremity is in 23° , and the western in 6° east longitude. The eastern division contains 88,200, and the western 18,100 square miles; total, 106,300.*

2. *Mountains.* Some parts of the eastern division are skirted by the *Hartz* and *Sudetic* mountains. In the western part, there are some ranges of hills; but in general, the country is not mountainous.

3. *Rivers.* The *Oder* rises in Moravia and flows through the whole of eastern and southern Prussia northwesterly into the Baltic; it is 460 miles long, and for the most part is navigable. The *Elbe* enters Prussia from Saxony, and flows northwesterly into Hanover. The *Spree*, *Saale*, *Havel*, and *Elster*, are tributaries of the Elbe. The *Pregel*, *Niemen*, and *Vistula*, water the northeastern part. The western part is traversed from southeast to northwest by the *Rhine*.

4. *Coast and Bays.* Prussia has 500 miles of coast upon the Baltic, comprising two large bays, the *Gulf of Dantzic*, and the *Gulf of Rugen*, and three *Haffs*, or Gulfs; the *Kurische Haff*, which receives the Nieman; the *Frische Haff*, at the mouth of the Vistula; and the *Stettin Haff*, at the mouth of the Oder.

5. *Islands.* On the coast of Pomerania, on the Baltic, is the island of *Rugen*, the largest belonging to Germany. It contains 370 square miles, and is partly covered with a forest of beech trees. Many parts of it are fertile. It has 28,150 inhabitants. The chief town is *Bergen*, with a population of 2,200. Several small islands are scattered around it.

6. *Climate.* The climate is temperate and healthy in general, though varying much in the different provinces. Along the Baltic it is cold, damp, and variable. In the interior it is much more agreeable.

7. *Soil.* In the eastern part there is little fertile land, except strips of low marshy territory along the coast and rivers. The remainder is sandy and overgrown with heath. In the western part the soil is much superior; yet here are many tracts that are stony and unproductive.

8. *Minerals.* The mountainous parts contain iron, copper, lead, and silver. Salt is obtained from springs in Prussian Saxony. Eastern Prussia is the only country of Europe which produces in any abundance the remarkable substance called amber; naturalists are yet ignorant of its origin, and it is uncertain whether it should be ranked among vegetable, mineral, or animal productions. It is found on the shores of the Baltic, thrown upon the beach by the strong northeasterly gales. Sometimes it is found in sand-hills near the sea, in regular strata, which are worked as in a mine. It is also found in the interior, but in small pieces, and to a trifling

* The Canton of Neuchâtel, in Switzerland, acknowledges the sovereignty of the king of Prussia; but this is in his own right, and not as king of Prussia.

amount. The portion of the coast from which it is taken is 8 leagues in extent, from Pillau to beyond Polangen. About 200 tons are produced annually, yielding a revenue of 22,000 dollars to the king.

9. *Face of the Country.* The eastern part is an immense plain, so flat towards the sea, that the coast would be exposed to inundation were it not protected by downs of sand. The rivers have so little descent to carry off their waters, that they run into stagnant lakes. The western part is somewhat hilly. Forests of great extent exist in both divisions.

10. *Divisions.* The Prussian monarchy is divided into 8 provinces, which are subdivided into 25 governments and 328 circles. Two of the provinces are in the western, and the remainder in the eastern section.

Provinces of Eastern Prussia.

Prussia,
Grand Duchy of Posen,
Saxony,
Silesia,

Pomerania,
Brandenburg.

Provinces of Western Prussia.

Westphalia,
Rhine.

11. *Canals.* The *Bromberg Canal* connects the Brahe, a tributary of the Vistula, with the Netze, a tributary of the Oder; 16 miles long. The *Frederic-William Canal* unites the Oder above Frankfort with the Spree, and the *Plauen Canal* connects the Elbe and the Havel. There are some other canals, but, as well as those above mentioned, they are of no great extent.

12. *Towns.* *Berlin*, the capital, situated in the midst of a sandy plain upon the Spree, is a handsome city, with spacious and regular streets, adorned with several fine squares and many

elegant edifices. The Royal palace is one of the most magnificent in Europe, and the arsenal is one of the largest in the world. Several palaces of the royal princes and of the nobility, and many public edifices and churches, are also handsome buildings. Some of the 22 squares are adorned with statues or other monuments, and Lime-street, planted with 6 rows of lime trees, is one of the most beautiful streets in Europe. There is a great number of literary institutions and scientific establishments, which are of a high order. The university, with its beautiful halls and excellent collections, is perhaps equal to any in the world; and there are



Royal Palace.

5 colleges, 7 gymnasiums, and other higher schools, with upwards of 100 elementary schools. The Zoological Garden is a favorite promenade; and the Parade-ground is an extensive field, used for military reviews. Population, 240,000 in 1848.

Potsdam, the capital of Brandenburg, situated upon the Havel, is the second royal residence. It is a handsome city, with a royal castle, and many elegant edifices. Population, 40,000. In its neighborhood are three royal palaces, among which, that of Sans Souci is the most famous. *Frankfort on the Oder*, has a thriving commerce, and 30,000 inhabitants. *Stettin*, on the Oder, is a fortified town, with one of the best ports in Prussia. Population, 45,000. Large vessels stop at *Swinemunde*. *Stralsund*, in this vicinity, is an important commercial town, with 18,000 inhabitants. *Breslau*, upon the Oder, capital of Silesia, is officially styled the third capital of the kingdom. Its university, with numerous scientific institutions and a valuable library, the extent of its commerce and manufactures, and its population, amounting to 112,000 souls, render it the second city in Prussia.

Posen is a large and flourishing city upon the Wartha. It is strongly fortified, and its three annual fairs render its trade brisk. Population, 40,500. *Koenigsberg*, near the mouth of the

Pregel, is a large city, with straight and spacious streets, and 77,000 inhabitants. It carries on an active commerce, and it contains a university, observatory, several gymnasiums, &c. Its port is *Pillau*, at which the largest vessels stop, as there is not sufficient depth of water in the *Frische Haff*. *Dantzic*, formerly the capital of a republic, is the principal commercial port of Prussia, being the outlet for the products of Poland. It is beautifully situated, but badly built, and is one of the chief Prussian fortresses. Population, 66,000. The other most important towns in this part of the country are *Elbing*, a manufacturing and commercial place, with 20,000 inhabitants; *Thorn*, the birthplace of Copernicus, with 11,000 inhabitants; and *Tilsit*, with a population of 12,000.

Magdeburg, the capital of Saxony, is one of the strongest fortresses in Europe, and is a commercial place of some importance. Population, 68,000. The other principal towns of this province, are *Halle*, important from its salt-works, its manufactures, its book-trade, and its celebrated university, with 32,000 inhabitants; *Halberstadt*, with an active trade, and a magnificent cathedral, 18,000 inhabitants; and *Erfurt*, noted for its literary establishments, its flourishing commerce and its strong works, and containing 32,000 inhabitants. *Munster*, capital of Westphalia, is interesting from its historical associations. The peace of Westphalia, 1648, was signed in the council-house of *Munster*. Population, 25,000.

Cologne, on the Rhine, the capital of the province of the Rhine, is a strongly fortified, commercial, and manufacturing city. Its cathedral is one of the finest in Germany. Population, 95,500. In the neighborhood are *Dusseldorf*, with extensive manufactures, and 28,800 inhabitants; *Elberfeld*, which has lately been rendered one of the most flourishing towns of Germany by its manufactures of wool, silk, cotton, &c., and its brisk trade, 38,000 inhabitants; *Barmen*, adjoining the latter, with 35,000 inhabitants, engaged in the same manufactures, and *Bonn*, noted for its university, with 18,000 inhabitants. *Coblenz*, at the junction of the Moselle with the Rhine, is chiefly remarkable for its immense military works, designed to render it the bulwark of Germany on the side of France. Population, 23,000.

Aix-la-Chapelle, an ancient city, pleasantly situated between the Rhine and the Meuse, has long been a place of historical interest, and the mineral waters in its vicinity have for centuries been much resorted to. It was the favorite residence of Charlemagne, who built the celebrated minster. The old town-house, in which 55 German emperors were crowned, is also an interesting object. The important treaty of peace, called the peace of *Aix-la-Chapelle*, was concluded here, in 1748; and, in 1818, a congress of the great powers was held in this city. The inhabitants are actively engaged in manufactures of cotton and woolen goods, watches, and jewelry, and carry on a brisk trade. Population, 48,000. In the neighborhood is *Treves*, with 20,000 inhabitants, which contains many remains of its former splendor, and a celebrated cathedral and church of Our Lady. The Roman bridge over the Moselle, and the vast structure called the Black Gate, are the most remarkable monuments of antiquity. *Crefeld*, with 16,000 inhabitants, and *Wesel*, 14,000, noted for their manufactures; *Saarlouis*, an important fortress, and *Xanten*, interesting from its magnificent cathedral and numerous antiquities, are also in this section of the country.

13. *Agriculture*. In much of the eastern section, the implements of husbandry are rude, and agriculture is in a backward condition; but in the western section, much of the country is skillfully cultivated. The raising of cattle and sheep is the employment of many of the inhabitants; the vine is cultivated along the Rhine.

14. *Manufactures*. The principal articles of manufacturing industry are woolen, linen, and cotton goods, and hardware. Silesia and the Rhenish governments are the most extensively engaged in this branch of industry. Iron and steel wares are made largely at Berlin, Solingen and Iserlohn. The printing-presses of Berlin and Halle are numerous and productive.

15. *Commerce*. Prussia has little maritime commerce, and but a small commercial, and no military marine. Corn, provisions, cattle, the Silesian linens, the Rhenish and Moselle wines, the Westphalian hams, and amber and metallic ornaments, are the chief exports. Colonial or India goods form the bulk of the imports. The inland trade is more extensive.

16. *Religion*. Perfect religious freedom exists in Prussia. Three fifths of the inhabitants belong to the Evangelical or United Lutheran-Calvinist church. There is a Protestant archbishop of Koenigsberg, and there are bishops of Berlin, Stettin, and Potsdam. The Catholics are most numerous in the provinces of Posen, Westphalia, and the Rhine. There are two Catholic archbishops, of Cologne and Posen, and six bishops

17. *Education.* There are six universities in Prussia, at Berlin, Halle, Breslau, Bonn, Königsberg, and Greifswalde. Those of Berlin, Halle, and Bonn rank among the most excellent institutions of the kind in Europe. The next inferior degree of education, called the secondary education, is liberally provided for by numerous and excellent institutions, such as gymnasiums or classical schools, Real-schulen or schools for instruction in mathematics, sciences, &c. Elementary education is afforded by upwards of 22,000 common or primary schools, to which all the subjects are required by law to send their children, after they reach a certain age. On the whole, there is no country where the system of public education is so extensive and complete as in Prussia.

18. *Government. Army.* The government is an absolute monarchy; the revenue is about 35 millions of dollars; the public debt, 140 millions. The military is composed of the regular troops and the militia or landwehr; the former amounts to 162,000 men; the latter to 360,000. Every subject is required to serve three years in the standing army, between the 17th and 23d years of his age, with the exception of those who have received a certain education, these serve but one year. After this term of service, every person belongs, till his 30th year, to the first class of the landwehr, which is drilled every Sunday, and is in active field service for the space of three weeks, once a year. The second class of landwehr, composed of those above 30, is exempt from further duty, except in war. Thus the whole nation is essentially military, and Prussia has been called by a late traveler, "the classic land of barracks and schools."

19. *Inhabitants.* Five sixths of the whole Prussian population are Germans. In the provinces of Prussia and Posen, the Slavonic race is numerous, comprising Poles, Lithuanians, &c. The Wends, in the province of Brandenburg are likewise Slavonians. The Jews are numerous in Posen, and there are some French on the western frontiers of the province of the Rhine. The Germans of Prussia are industrious and orderly; but, though well educated, the lower orders are without that civil and political freedom, which alone can bring their knowledge and talents into activity. The Slavonic nations are very much behind the Germans in the useful arts, intelligence, foresight, and the comforts of life; and even when surrounded by a German population, obstinately adhere to their own language and customs. Population of the kingdom, in 1843, 15,471,765, in 1850, 16,330,186.



Prussians.

19. *History.* The present kingdom of Prussia has been formed by various conquests, since the beginning of the 18th century, when it first assumed the rank of a kingdom. Frederic William the First, who reigned from 1713 to 1740, laid the foundation of the military power of Prussia. His son and successor, Frederic the Second, called the Great, augmented his territory by the conquest of Silesia, and the partition of Poland, and left the kingdom with a high political influence in Europe. The battle of Jena, in 1806, threw the whole kingdom into the hands of Napoleon. From this time, it was little more than a dependency of the French empire, till the Russian campaign. After the fall of Napoleon, the kingdom was established upon its present footing, with great accessions of territory, and it is now the fifth of the great European powers.

CHAPTER XXVI. GENERAL VIEW OF GERMANY.

1. *Boundaries and Extent.* The States of the German Confederacy are bounded north by the German Ocean, Denmark, and the Baltic Sea; east by Prussia, Posen, Poland, Cracovia, Galicia, Hungary, and Illyria; south by Istria, the Adriatic Sea, the Lombardo-Venetian kingdom, and Switzerland; and west by France, Holland, and Belgium. They extend from 45° to 54° 40' north latitude, and from 4° 50' to 20° east longitude, and contain 246,000 square miles, with about 42,000,000 inhabitants.

The following is a list of the States of the German Confederacy; besides which, are the duchies of Holstein and Lauenburg, now belonging to Denmark; the duchy of Luxemburg, belonging to the king of the Netherlands; all the kingdom of Prussia except the Polish and

Prussian (Proper) provinces ; and all those provinces of Austria before described as the German provinces of that empire : —

<i>Kingdoms.</i>	{ Bavaria, Wurtemberg, Hanover, Saxony.	<i>Principalities.</i>	{ Hesse-Cassel, 2 Hohenzollern States, Liechtenstein, Lippe-Detmold, 3 Reuss States, 2 Schwartzburg States, Schaumburg-Lippe, Waldeck.
<i>Grand Duchies.</i>	{ Baden, Oldenburg, Mecklenburg-Schwerin, Mecklenburg-Strelitz, Hesse-Darmstadt.	<i>Landgraviate.</i>	Hesse-Homburg.
<i>Duchies.</i>	{ Brunswick, 3 Anhalt States, Nassau, 4 Saxon States.	<i>Lordship.</i>	Kniphausen.
		<i>Free Cities.</i>	{ Hamburg, Frankfort, Lubec. Bremen.

2. *Mountains.* The *Alps* extend in several ranges through the south of Germany. The *Rhätian Alps* proceed from the Grisons and the Tyrol. The *Noric Alps* extend into the plains of Hungary. The *Carpathian Mountains* occupy a portion of the eastern parts. The *Sudetic* chain is a branch of these, extending westerly, and receiving, in different parts, the names of the *Riesengebirge*, *Erzgebirge*, *Fichtelgebirge*, and *Thuringerwald*. The *Hartz Mountains* are the most northerly, and may be considered as a continuation of these last. Many parts of the *Alps* rise to the height of perpetual snow.

3. *Forests.* The great passion of the Germans for hunting the wild boar, is, perhaps, the reason why this country abounds so much in forests. The Hercynian forest, which in Cesar's time was nine days' journey in length, and six in breadth, is now divided into woods, which bear particular names. The mountains are so generally clothed with wood, that the German word *wald* signifies both mountain and forest. Most of the woods consist of pine, fir, oak, and beech.

4. *Rivers.* The most celebrated river of Germany is the *Rhine*. It rises in Switzerland, and, falling over two large cataracts, flows westerly to Basle, where it forms the boundary between France and Germany, and begins its northerly course ; it then enters Germany, and flows north and northwest to the Netherlands, through which it passes to the sea by several mouths. It is in general a broad, deep, and rapid river, and its shores abound with the most romantic scenery ; but as it approaches the sea, its waters become dispersed over a flat and level country, and the grandeur of its appearance is totally lost. Its whole course is 685 miles, for the greater part of which, it is navigable. Its chief branches are the *Mayne* and the *Moselle*.

The *Elbe* rises in the *Sudetic* mountains of Silesia, and flows northwesterly into the German Ocean. It is 575 miles in length, and is a good navigable stream ; its chief branches are the *Saale* and *Havel*. The *Oder* rises in the mountains of Moravia, and flows westerly and northerly into the Baltic ; its length is 400 miles ; its chief branch is the *Wartha*. The *Weser* is formed of several head streams in the northwest, and flows in that direction into the German Ocean ; it is 270 miles in length. The *Danube* is a German river for the first half of its course ; it flows easterly through the southern part of Germany into the Hungarian States.

5. *Climate.* The climate of Germany is modified by the elevation of the surface, and the exposure of the different sections. For purposes of general description, it may be divided into three regions. In the first, or that of the northern plains, the climate is humid and variable, though not cold ; it is exposed to every wind, which conveys fogs and storms from two seas. The northwestern plain, from its vicinity to the North Sea, is subject to frequent rains and desolating tempests, while the influence of the Baltic Sea on the northeastern plain, is less powerful, and the climate, though colder, is less variable. The second region comprehends all the central part of Germany, which is sheltered by the mountains from the variableness and humidity of the maritime climate ; this zone, the most agreeable of Germany, extends from latitude 48° to 51°, but the general elevation of the surface renders it colder than other European countries of the same latitude. The third general division is the Alpine section ; here the lofty heights and sudden depressions bring very different climates into contact with each other. The eternal glaciers of the Tyrol and Saltzburg are contiguous to the vine-covered valleys of Stiria and Carinthia, and but little removed from the olive groves of Trieste, and the ever-blooming gardens of Italy. Vines, rice, and maize thrive as far north as 54° ; beyond that

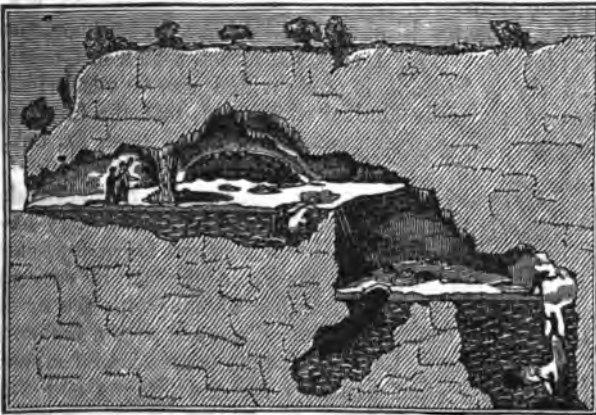
latitude, they do not arrive at perfection. The olive and silk-worm are successfully raised only in that small part of Germany which lies south of 46° .

6. *Soil.* The soil is generally productive. The plains in the north have, indeed, much arid land, but along the rivers are rich and fruitful soils, yielding abundant harvests. In the south, there is much barren or slightly productive land on the mountains, but the beautiful valleys and small plains rival in fertility the best alluvial lands on the banks of the northern rivers. In general, the soil in the north is heavy, and best adapted for corn; in the south light, and best fitted for vines. The best soil is in the central section, between the mountains and the sandy plains.

7. *Animals.* The chamois is found upon the Noric and Rhetian Alps. Foxes, martens, weasels, polecats, and wolves descend from the mountains into Silesia and Moravia. Bears inhabit the Alps of Stiria, Illyria, and the Tyrol. Wildcats are common.

8. *Face of the Country.* The southern districts are traversed by lofty and steep mountains. Toward the centre of the country they decrease in elevation, till they gradually sink into a plain. The northern parts are level, and exhibit immense peat marshes and sandy districts. The coast is so flat, that dikes are required to keep out the sea. The southern part of Germany presents every variety of romantic and picturesque scenery. The northern is a uniform, undiversified level.

9. *Cavern.* At Gailenreuth, in Franconia, is a remarkable cavern with several chambers, containing the bones of antediluvian animals, buried in beds of gravel by the waters of a flood. The entrance is 8 or 10 feet in height, and is separated by a pillar of stalactite from the larger chambers. The floors are of stalagmite.



Section of the Cavern at Gailenreuth.

10. *Inhabitants.* The Germans are descended from the ancient tribes which formerly inhabited the forests of the country, living in wild freedom, and subsisting principally by the chase. The Germans are hardy and robust, and have generally light hair and complexions, with blue eyes, especially in the north. In Prussia, they are tall, and the hair and moustache are often so white, that they look like

cotton, when opposed to the glowing and ruddy cheek. There are generally four classes of nobility, which are thus titled, Prince, Count, Baron, and Herr Von; the latter is the first step above plebeianism, and answers to the French addition of *De*.

11. *Dress.* The lower classes dress in the manner the most convenient for their occupations, and without any very distinguishing peculiarities; the higher classes follow English and French fashions. Caps are nearly universal with the men; they are made of cloth, with low crowns, two or three inches only in height, and have a small projection over the eyes. The female peasants and domestics wear, on holydays, gaudy caps of gold stuffs, and those who are too poor to wear these, adorn their heads and arms with a few flowers.

12. *Language.* The German language has several dialects, but the high German is that which is spoken by all educated men in the different States, and in which the literature is contained. The low German is the Frisish, used on the shores of the German Ocean, and more properly, the dialect used in Westphalia, Mecklenberg, Brandenburg, and Pomerania. The German was hardly cultivated in Germany, in the middle of the last century. Science spoke in Latin, and fashion in French. Voltaire, who always spoke in epigram, said, that he would address his mistress in Italian, his friend in French, a dog in Dutch, and the devil in German. The German, however, is a rich and copious language, containing more words than any other, and having the power of making inexhaustible compounds. As the Latin was lately the language in which scholars communicated, the Germans are more familiar with it, as a classic language, than any other nation. French, also, is very common, and English is becoming a favorite study.

13. Manner of Building. In the modern architecture there is little to interest a stranger, in Germany. Generally, the old towns are dark, dismal, and mean in appearance. The modern cities are, some of them, spacious and neatly built. The gardens attached to country houses are often in the English style. The Gothic churches are, some of them, wonderful monuments of labor and art.

14. Food and Drink. The Germans take more food than their southern neighbors, and of a plain, substantial kind. The common people follow the plainest style of cooking, and are fond of fat substances, which they use with sour cabbage.

The ancient character is not yet extinct, for the Germans are much addicted to intoxicating liquors, especially in the north, where they consume great quantities of beer, porter, and ale. Alehouses are but too well supported; the sign over them in some of the States is, "Welcome, friend," and few coachmen pass without taking *schnaps*. Smoke and beer make the atmosphere of a common German. Drunkenness, however, is most frequent in the north. In the south is a more genial beverage, produced on the banks of the "Father of wine," for so the Germans delight to call the Rhine.

The wines of Germany are much esteemed. They are various, but the most celebrated are the Hock and the Johannisberg. The Hock is produced so far north, that the river is frozen for weeks in winter, and the vine would probably thrive well in the United States. The Johannisberg is not easily to be had. It is produced only on a small domain, the property of Prince Metternich, and it is chiefly sent as presents to sovereigns. Those of the alliance are probably the most favored. It sells on the spot for little less than two dollars a bottle.

Smoking is almost an employment in Germany. The pipe is ever at hand, and it is seldom out of use. The bowls are of porcelain, large and ornamented with views of German scenery, buildings, &c. The atmosphere of an alehouse is so filled with smoke of numerous pipes, that the smokers are hardly visible.

15. Diseases. These are generally the same that are common in the United States, though there are fewer pulmonary complaints in Germany.

16. Traveling. This is more expensive, and less expeditious, than in France. The coaches in some parts go little more than three miles an hour, and the *schnell wagen* or velocity coach, which is established on some routes, goes but six miles an hour. The *coche d'eau* or water coach, which is found on the rivers, has little to recommend it but cheapness.

17. Character, Manners, and Customs. The Germans are descended from various tribes, with similar features, languages, and manners, which anciently overspread nearly the whole of what is now called Germany. They were rude and warlike, and successfully withstood the Roman arms. The legions of Varus were the sacrifice to German patriotism and valor. The Germans held, that the brave only enjoyed the favor of the gods after death. They were more attached to their wild freedom than to life. They were implacable to foes, though kind and gentle to each other. They followed gaming to the most frantic excess, and were much addicted to intoxicating liquors; it was only when intoxicated, that they debated in their public councils matters of general interest.

The Germans retain, in a high state of cultivation, some of the traits by which they were marked while they were barbarous tribes; they are hardy, brave, and attached to their country. They are distinguished for great individual and personal independence, and the word "Fatherland" never fails to touch the "electric chain," by which they are bound to their country. They are faithful and sincere, and deceit is foreign to their nature. They are imaginative, though they have great powers of labor and reflection. They were formerly thought to be plodding and dull, but this was a great error. One of their writers has said truly, that while the English have the dominion of the sea, and the French that of the land, the Germans have the empire of the air. The national character is so much founded upon justice, that the public never forgives a want of probity, as it sometimes does in Italy or France.

"With few but signal exceptions, Germany, even at this hour, is not a country remarkable for the elegancies of domestic life. Its very palaces are of simple decoration; its luxuries of a homely and inartificial kind, and its taste is rarely superior, and, indeed, not always equal to our own. There is still a shade of the Gothic in the habits and opinions of this constant people, who seem to cultivate the subtle refinements of the mind, in preference to the more obvious and material enjoyments which address themselves to the senses."

The Germans are fond of titles, and exceedingly complaisant in bestowing them. A letter to a count is addressed, *to the high born Count, Count of B—*. To a plain citizen the ad-

dress runs, to the well born Mr., Mr. R——. These customs, however, are going out of use in some parts. There is a feminine substantive, corresponding to the masculine title, and the wives are always addressed by the titles of their husbands ; as the Lady Professoress, the Lady Counsellorress of Justice, the Lady Generaless ; *Gnadige Frau*, or Gracious Lady, is the colloquial title of one of the nobility. The Germans use many profane exclamations, and *Lord Jesus*, and *Dear God*, are heard in every one's speech. The exclamations of surprise are *God's thousand*, *hundred*, *lightning*, or *thunder*. *Thunder und Doria*, taken from Schiller's *Fiesco*, is in use with the students. When the Germans part, they say, *may you live happily*. In a passing salute they raise their hats high above their heads. Friends, when they are about to part, or when they meet, kiss each other, not on the cheek, as in Italy, but on the lips, which have generally an abattis of *moustaches*. The German ladies have a touching voice, fair and dazzling complexions, with great sensibility and fancy. Madame de Staël remarks, that they "coquet with enthusiasm," not like the French and English, with pleasantry and wit. They have an inveterate custom, high and low, noble and peasant, of knitting stockings, wherever they are. It is as general as the custom of smoking with the sterner sex.

The Germans though they have frequent quarrels, seldom come to blows ; a blow is an indignity, that nothing but the offender's blood can atone, and a man in common life would appeal to arms to avenge it. Hard words are applied in profusion, and to scold is a common way of quarreling ; "a mode," says Russell, "that annihilates the distinction between the sexes." The German character, it must be remembered, is somewhat various, in the different States ; and, as has been said, it is as much parceled out as the land, though there are certain traits that run through the whole. The difference is greatest between the north and the south, and the literary and the commercial towns.

The Germans of the south are, in general, less favorably distinguished for morality and intelligence than those of the north, and much less has been done in the former section towards enlightening the great mass of the people ; yet there are many exceptions to this remark. In many quarters of the country the moral condition of the peasantry is very miserable ; ignorant, superstitious, dull, indolent, and dirty in their habits, and slovenly in their mode of cultivation, they still bear the traces of their recent servitude.

18. *Amusements*. Many of the amusements are those which are common in England and France. The favorite active sport is the chase of the wild boar, and although the game privileges may be, as in England, distinct from the soil, yet all classes are permitted to attend the prince in the chase, but not otherwise to engage in the sport. Hares are exceedingly numerous, and they are hunted not with grey-hounds, but with peasants. These form a large circle, and, with great vociferation, close by degrees upon a centre, driving the hares before them. The hunters shoot them down in great numbers, and a random shot sometimes hits one of those who act as the pack. But dancing is the national amusement, and it is pursued with more enthusiasm than in France. The waltz is the national dance, and it is introduced into most of the foreign figures that prevail in Germany. Fathers and sons are seen in the same dance ; all classes dance, except that which has the dignity of royalty to support. Royal personages only *polonaise*, in a light, airy step, between a dance and a walk.

19. *Education*. In the means of education, the north of Germany far surpasses every other country. The Protestant States are more enlightened than the Catholic, and in Saxony there is hardly a peasant, that cannot read and write. In Prussia, there are upwards of 20,000 elementary schools. The Gymnasiums of the north of Germany are celebrated ; they are schools preparatory to the universities ; but the studies pursued in them are equal to those of the universities, in some countries. The gymnastic exercises are pursued with ardor in some, though in the most they are discontinued. The universities of Germany are the best in the world. They have students from every European nation, and from America. The universities of Göttingen, Berlin, Bonn, Jena, Halle, and Leipsic, are the most celebrated. The 23 universities of Germany are attended by about 16,000 students ; there are at that of Berlin, 1,600 ; of Vienna, 1,950 ; of Munich, 1,500 ; of Prague, 1,450 ; of Leipsic, 900 ; of Halle, 700 ; of Göttingen, 700. The instructions are given in a great measure by lectures, and one professor often lectures on several subjects. The libraries are the best and most extensive in the world ; and any student may take out many books at a time, a hundred if he will. The libraries contain all that is valuable in ancient or modern science. The library at Göttingen contains 300,000 volumes, all collected in less than a century. North of the Mayne, it is difficult to travel for a day without finding a library ; at Carlsruhe is one of 70,000 volumes ; at the distance of a few

hours' ride is another at Heidelberg, of 30,000 volumes. At the distance of 30 miles, is a third at Darmstadt, of 90,000 volumes; at Mentz is another of 90,000, and another still, at Frankfort, of 100,000. Thirty miles from Frankfort is a small library of 20,000 volumes, but at Marburg, 20 miles further, is one of 55,000. At Cassel the library contains 70,000 volumes, and from this town the traveler may arrive in a day at Gottingen, where he finds a collection of 300,000 books; and at Wolfenbittel, about 40 miles distant, is another of 200,000. At Hamburg are 2 libraries, one of 25,000, the other of 60,000 volumes. At Weimar is another library of 95,000 volumes, and at Jena a second of 30,000. Dresden has one of 260,000 volumes; Berlin another of 300,000, and Munich, one of the greatest, 600,000. Thirty-one libraries in Germany contain more than 3,300,000 volumes, or, on an average, 107,000 each. The 31 largest libraries in the United States do not contain 250,000 volumes. There are in all Germany 150 public libraries, containing 5,000,000 volumes.

The Germans are indefatigable students, and many of the learned have devoted 15 hours daily to study. The students at the universities have many peculiarities. Their dress is affectedly uncouth, and it is worn with negligence. The coat is shapeless, the hair is worn long, and a wide shirt collar is turned over the shoulders. Boots are always worn, and to these are fixed spurs of enormous dimensions. One or more rings, as large as watch-seals, generally adorn the fingers, and no student in full dress is without a ruffle of unreasonable length, though many have no shirts. This, with a pipe 4 or 5 feet in length, completes the equipment.

The *moustache* is permitted to grow several inches long, and it is twisted to a point. The students call themselves *Burschen*, or "young fellows," *par excellence*, and the town's people they call *Philistines*. The students in the north of Germany are great consumers of beer; and those of the south are no less devoted to wine. In their evening potations, each one has several tankards set before him, sometimes as many as 9, so that a line of students on each side of a table, may look down upon 18 rows of tankards. In the south, the *Burschen* songs are in praise of wine; but in the north, they celebrate the virtues of beer. The following is a stanza;

"Come, brothers, be jovial, while life creeps along,
Make the walls ring around us, with laughter and song;
Though wine, it is true, be a rarity here,
We'll be jolly as gods, on tobacco and beer.
Vivallallerallera."

The students unite in clubs called *Landmannschaften*, composed of those of the same country or district, and their club is generally indicated by the color or trimming of the cap. They pay a few dollars on entering, for the expenses of the club, though the money thus raised is generally applied to the purchase of duelling apparatus, and each *Landmannschaft* has a complete armory. Duelling may be said to be universal; of course it is not attended with much peril. It is an example of moderation to have passed several years at a university without a duel. The party challenged has not the privilege of choosing his weapons; he must fight according to the established mode. The weapon is a straight sword, about 3 feet in length, with a double edge near the point, that will cut both ways. The combats are generally held in rooms, and few of them are fatal. A few friends and a surgeon are present, with the two seconds, and an umpire chosen by them. The hands and arms are covered with thick gloves, and a stuffed leathern breastplate completely protects the body. The face only is exposed. For a trifling offence, 12 blows are struck, and if no blood is drawn, the parties shake hands and separate. For a greater offence, blood is to be drawn; on its first appearance, the umpire orders a suspension of hostilities, and the surgeon examines the wound. If it be two inches in length, and opens of itself one fourth of an inch, enough has been done for glory, and the parties are reconciled. The seconds are dressed like the combatants; they stand by the side of their principals and are permitted to ward off the blows. The combatants sometimes lose an eye or a nose; many have scars on their faces, and some are miserably hacked. The *Landmannschaften* are the nurseries of duelling; each club being exceedingly tenacious of its own dignity. Fencing, very improperly, makes a part of the university instruction. All the details of the duel are fixed in the *comment*, or *Burschen Pandects*.

12. *State of the Arts, Science, and Literature.* The Germans had Albert Durer and others in painting; and Schadow and Danneker are living sculptors of merit; but music is the national art; the taste for it is universal, and at a German concert the deepest silence prevails; every eye is fixed on the performers, and a general disapprobation would be expressed should any one interrupt the attention of the audience. At Berlin, the silence of night is broken by

nightingales, hung in cages, on the lime-trees ; and which divide attention with the various musical bands, that charm away the summer nights in that metropolis.

The inhabitants of Germany may rank next to the Italians as the most successful cultivators of music ; and it is even doubtful whether, with regard to eminent composers, they do not carry off the palm from the most musical of nations. Instrumental music, especially, which requires labor and perseverance, qualities for which the German character is so much distinguished, has been brought by them to great perfection ; and if their composition is of a more labored character than the Italian, it has also more science, and affords more pleasure than any other, to those who are capable of appreciating it. The organs and organists of Germany, as well as their violin performers, have long been famous over Europe. Before the 16th century, there was little music in any country except masses and madrigals, the two principal divisions of sacred and secular music ; and in the former, the Germans more especially excelled. In the 16th century, among their most eminent composers and theorists were, Keischius, Michael Koswick, Henry Loris, Taber, and Hoffman. When dramatic music came into fashion, the opera, imported from Italy, was introduced into the German capitals, and patronized by the German princes. So late, however, as the 17th century, the performers in the German operas, were tradesmen and handicrafts. Shoemakers performed the first parts ; and girls, who during the day sold fruits and sweetmeats through the streets, appeared in the evening as Armida or Semiramis. This exhibition soon rose to a more respectable character, and at about the period when Handel began to acquire celebrity, the Italian opera, especially at Dresden, at the court of Augustus, Elector of Saxony, was performed in the most splendid manner. Handel himself, one of the most eminent composers, whether of Germany or of any other country, was in the service of the Elector of Hanover, afterwards George the First, when his fame began to be spread all over Europe. He was the first who introduced oratorios into England, and, at his own risk, engaged a whole band of performers for the London opera. His oratorios of the Messiah and Samson, his *Acis and Galatea*, and all his numerous compositions, are too well known to require praise ; and, however the caprice of fashion, which brings about nearly as many changes in musical taste as in any other, may neglect the harmony of Handel for more brilliant melody, his name will always be venerated, and his compositions admired, by all true judges of the art. The English were not ungrateful for the services which Handel had rendered to music in their country, and the year 1784 was rendered memorable in the annals of the art, by the splendid manner in which his birth and genius were celebrated in Westminster Abbey, and the Pantheon, by fine performances of pieces, selected from his own works, and executed by a band of more than 500 voices and instruments, in the presence of the royal family and the first persons of the kingdom. The commemoration of Handel has since been established as an annual musical festival for charitable purposes.

But the prince of German musicians, even among a host of eminent composers, is undoubtedly Mozart, a rare instance of an infant prodigy, whose manhood more than surpassed the promise of his early years. All his performances breathe the same sensitive and delicate spirit with which nature had endued him, even to a degree of morbid acuteness, and to an extent which incapacitated him for the labors and duties of life. There is more depth of feeling in his works than brilliancy, and even his most lively compositions have a tinge of sadness. He is dignified, without severity, and tender even in his most cheerful mood. He may rank among musicians as Raphael among painters ; while Handel, with the severe majesty of an ancient artist, has infinitely less grace and melody. But it would be tedious to enumerate the German composers, who have enriched music by their splendid works. We can only mention Haydn, who may be ranked next to Mozart ; Beethoven, whose compositions have afforded the utmost pleasure to the lovers of science and harmony ; and Weber, whose untimely death has caused a blank in the musical world, which the pleasure derived from his splendid operas can hardly compensate. His style is truly German and original, full of striking passages, and capricious, but beautiful changes. It speaks of dark forests, and frowning precipices, where the torrent appears suddenly to stop the listener's progress, or where he rests for a while to breathe the clear, pure air of the mountain tops ; or to hearken to the huntsman's horn, as it echoes among the rocks. Among his countrymen his name is spoken with enthusiasm, and his death was a signal for mourning throughout Germany, where the excellence of his private character was as fully appreciated as the splendor of his talents. There is no country in the world where military music is carried to greater perfection than in Austria, where the bands surpass all others. Of the ancient national music of Germany, little is known, and though their bards sang in the

Songs of princes, their music was probably, like the national character, rude and martial. The native airs of the Tyrol breathe the very spirit of mountain freedom and wildness. The melodies are usually of a cheerful cast, but it is mountain mirth; wild, inspiring, and untamed. Several of the natives of the Tyrol, who have left their hills, and traveled through England in hopes of profit, have been listened to with the utmost pleasure, by the most scientific audiences. The family of the Rautiers especially, who some years since made their appearance in London, were patronized by George the Fourth, and their melodies were collected and arranged by an eminent composer. Some of these airs were already well known, though the manner of singing them, peculiar to the natives, caused them to have all the effect of novelty. Others were said to be the original compositions of Felix Rautier, and exhibit much taste and simple beauty. Upon the whole, if the Germans are inferior to the Italians as vocal performers, and are, generally speaking, a less musical people, owing to their disadvantages of language and climate, they are, in musical science, decidedly superior to them.

The literature of Germany, though recent, is extremely rich; yet it is less national, or local, than that of any other country. It abounds in poetry and criticism, and the German poets have been very successful in the principle of terror. But every department of science and literature is filled with treasures, and the following are but a few of the German jurists, poets, critics, philosophers, and astronomers: Puffendorf, Klopstock, Wieland, Schiller, Göthe, Richter, Lessing, Leibnitz, Werner, Herder, the Schlegels, Eichhorn, Kant, Humboldt, Herschel, and Kepler.

20. Religion. This is generally Catholic or Protestant; but the Catholics are the most numerous body. The States in which they form the majority, are Bavaria, Baden, Luneburg, Hohenzollern, and Lichtenstein. There are many Catholics also in the Prussian States, Wirtemberg, Hesse, and Hanover. In the other States the Protestants outnumber the Catholics. There are about 500,000 Jews, who are variously restricted in the different States. In Prussia only, have they all the rights of citizens. The superstitions of the Germans are similar to those of the English. The ignorant believe in a kind fairy, in the wild huntsman, and his phantom hounds, urging the chase, and in the annual assemblage of witches in the Hartz forest.

In Prussia, persons betrothed give notice of the fact in the newspapers, and an addition to the family is announced in the same way.* Divorces are of frequent occurrence, in some of the German States. In Prussia alone there were 3,000 in the year 1817.

21. Laws. The German character is generally a better safeguard to justice, than the per execution of the laws. Open courts are rare. In some of the northern States, no criminal can be executed till he has made confession; but when convicted, he is shut up in a dungeon, more dismal and cold than that of Trenk; an abode of misery, in which innocence itself would confess for the alternative of the scaffold. In Prussia, the punishment of death is inflicted by decapitation, with a large sword, by burning, and by breaking on the wheel. Instances of burning are very rare. In breaking on the wheel, the head is sometimes crushed first, and afterwards the breast and limbs; but the torture is much prolonged, when the limbs are broken first. Peasants in Germany, are generally hereditary tenants. In Prussia, servitude was abolished in 1811, though before that time no person could hold land, unless he was ennobled.

22. Antiquities. These are mostly gothic. On the Rhine, and in some other parts, are many gothic castles, in every state of decay; in some the portals remain, as in the feudal ages, while others are dilapidated, and shapeless. The large towns have museums, in which are preserved the figures of knights, clothed in mail, together with all the various arms and equipments of feudal warfare.

23. Government. The German confederacy was formed in 1815, to protect the independence and secure the tranquillity of the States which entered into it. Thirty-six monarchical States, and 4 Republics or Free Cities, were the parties to the federal act. The organ of the confederacy is the Diet, composed of the plenipotentiaries of the sovereign members; it is constituted in 2 different forms. 1. The Plenum or general assembly, in which each member has at least 1 vote, and the great powers have several; Austria, Prussia, Bavaria, Saxony, Hanover and Wirtemberg have each 4 votes; Baden, Hesse-Darmstadt, Hesse-Cassel, Denmark, (for Holstein and Lauenburg), and the Netherlands (for Luxemburg) each 3; Brunswick,

* The following are extracts from Prussian newspapers:

"I have the honor respectfully to give notice of the betrothing of my only daughter, to Mr. F. of Newstead, Judge of the domain.

Signed,

The widowed Counsellor of Justice, R^{***}.

As betrothed, present { ANELIA R^{***}.
their remembrance, { EDWARD P^{***}."

"The fortunate delivery of my wife, on the 6th of this month, of a healthy boy, I announce herewith to my friends and relations.

Signed,

F. A. R^{***}."

Mecklenburg-Schwerin, and Nassau, each 2, and the others, one each,* making 71 votes. 2. The ordinary Diet is the other form of the assembly; in this there are but 17 votes, the principal powers (the 11 first named above), having each one vote, and the others voting collectively. This body discusses all questions, and proposes them for adoption to the plenum, executes its decrees, and in general, manages the affairs of the confederacy. The general assembly decides upon the propositions of the ordinary diet, makes war and peace, &c.

24. *Army.* The army of the confederation consists of 300,000 men, each State furnishing a contingent of troops, proportionate to its population. There are several cities considered as federal fortresses; these are Luxemburg, Mayence, Landau, Ulm, &c.

25. *History.* Germany, in ancient times, was divided into a number of principalities, independent of each other, though occasionally connected by a military union. The greater part of the country was subjected by the Romans; and in the beginning of the 8th century, Charlemagne extended his authority over the whole empire. In the 10th century it became an elective monarchy, and princes of different families, according to the prevalence of their interests and arms, were called to the throne. The houses of Saxony, Franconia, and Suabia, exercised the imperial power successively, but in the 15th century it became hereditary in the House of Austria. The German Empire was broken up in 1806 by Napoleon, who formed several of the States into a union called the Rhenish Confederation. Upon the settlement of the affairs of Europe at the Congress of Vienna, in 1814, the Empire was not reëstablished, but a new form of government was proposed, which resulted in the present act of confederation.

CHAPTER XXVII. GRAND DUCHY OF BADEN.

1. *Boundaries and Population.* The Grand Duchy of Baden is bounded on the N. by ducal Hesse; on the E. by Bavaria and Wirtemberg, and on the S. and W. by the Rhine, which separates it from Switzerland and France. Area, 5,700 square miles; population, in 1846, 1,349,930.

2. *Face of the Country, Rivers, &c.* Baden consists mostly of a fertile plain, containing excellent corn-fields and vineyards. On its eastern border extends the mountainous chain of the *Black Forest*, in which rises the Danube. The *Neckar*, a tributary of the Rhine, flows through the northern part of the Duchy. The *Rhine* washes its western and southern border. The lake of Constance forms a part of the southeastern boundary. The climate is mild and genial. The soil is good, and vegetation luxuriant. There are mines of silver and iron, and quarries of freestone and marble. Mineral springs and hot baths are very numerous. In the duchy of Baden are above 300 hot baths, some of which are scalding hot; all of them spring out of rocks of alum, salt, and sulphur. The State takes its name, signifying baths, from this circumstance.

3. *Industry.* Its central position between the Swiss, French, and German territories, and its situation upon the navigable waters of the Rhine, give Baden a considerable transit trade. Its manufactures are not extensive; toys, trinkets, and wooden clocks are the principal articles; these, with the products of its forests, vineyards, and pastures, are exported.

4. *Religion and Government.* The majority of the inhabitants are Roman Catholics, but the grand duke is himself a Lutheran. Liberal provision is made for the education of all classes, by the maintenance of elementary and Latin schools, and gymnasia or higher schools. There are universities at Heidelberg and Freyberg. The government is a constitutional monarchy, the legislative authority being vested in 2 houses or chambers.

5. *Divisions and Towns.* The grand duchy is divided into 4 circles, which are subdivided into *aemte* or *bailiwicks*.

Carlsruhe, the capital, is a handsome and regularly built city, near the Rhine, with 25,000 inhabitants. The 9 principal streets diverge in different directions from the ducal palace, and are intersected at regular intervals by cross-streets, forming concentric circles. The ducal library contains 70,000 volumes, and there are fine gardens attached to the palace. In the vicinity is *Baden*, with 6,500 inhabitants, celebrated for its mineral waters, which are annually resorted to by upwards of 8,000 visitors. There are here 26 warm springs, in some of which meat can be cooked.

* Kniphausen, however, is joined with Oldenburg, and Reuss-Schleitz with Reuss-Lobenstein, in voting

Rastatt, with 9,000 inhabitants, contains a castle, once the residence of the margraves of Baden; here were held the congresses of 1713 and 1798. *Manheim*, the largest town in Baden, is a handsome city, situated at the confluence of the Neckar with the Rhine. It was once the residence of the court of the elector palatine, and its palace, observatory, literary institutions, and population, 22,000 inhabitants, render it important. *Freyberg* is noted for its university, and its magnificent Gothic minster, the spire of which is nearly 500 feet high, being one of the loftiest in Europe. Population, 15,000. *Heidelberg* contains one of the oldest and most respectable universities in Germany. The situation of the town is delightful; strangers are here shown a tun of enormous size.

CHAPTER XXVIII. KINGDOM OF WIRTEMBERG.

1. *Boundaries and Population.* The kingdom of Wirtemberg is bounded N. and E. by Bavaria, and S. W. and N. by Baden. Its southern border also touches lake Constance. Area, 7,600 square miles; population, in 1850, 1,743,827.

2. *Surface and Rivers.* Two mountainous ranges traverse the country; the *Schwartzwald*, or *Black Forest*, extends through the western part; many of the summits in this range, which contains the sources of the Danube, are from 3,500 to 4,600 feet high; the *Alb Mountains*, or *Swabian Alps*, branch off from the Schwartzwald in the southwestern part of Wirtemberg, and traverse the kingdom in a northeasterly direction, separating the waters of the Neckar from those of the Danube; they are less elevated than the former. The *Neckar*, which rises in the Alb mountains, flows north and west into the Rhine, after a course of 160 miles. The minerals are silver, copper, iron, cobalt, sulphur, coal, limestone, alabaster, agate, &c. Warm baths and medicinal springs are numerous, and those of Heilbronn are particularly celebrated.

Wirtemberg is one of the most fertile and best cultivated parts of Germany, producing corn, wine, and various fruits. Except in the mountainous tracts, the surface is agreeably diversified with moderate hills and pleasant valleys, and the climate is mild.

3. *Industry.* This kingdom produces great supplies of grain, chiefly spelt; for rye and wheat are little cultivated. Flax and hemp are raised, and the mountains are covered with vines which produce a rich and wholesome wine called *Neckar*. Cherries are cultivated extensively in some parts for manufacturing the strong liquor called *Kirschwasser*. Fruit trees are abundant; cider and perry are made in great quantities. A singular yet considerable branch of industry is the feeding of *snails*; millions of which are fattened in the neighborhood of Ulm during autumn, and exported to Vienna and Italy. Manufactures are not numerous; but some cloth and lace are made in a few of the towns; and there are many large distilleries and oil mills. The exports are cattle, corn, wood, tar, potash, oil, and a few manufactured goods. Iron mines are worked in the Black Forest, and iron and salt are exported. The book-trade of Wirtemberg is an important branch of industry; but the situation of the country is not so favorable as that of Baden, for commercial operations.

4. *Religion, Education, and Government.* The Lutheran religion is professed by the great majority of the inhabitants; but nearly one third are Roman Catholics. There is one university, at Tübingen, and there are numerous lyceums, gymnasiums, and popular schools. The government is a hereditary, constitutional monarchy, the king possessing the executive power, and sharing the legislative with the two houses.

5. *Divisions and Towns.* Wirtemberg is divided into four circles; the Neckar, the Schwartzwald, the Danube, and the Jaxt.

The capital is *Stuttgart*, delightfully situated in a charming country, a few miles from the Neckar. The royal palace is a noble structure, and the library, one of the richest in Europe, containing 137,000 volumes, is particularly remarkable for its collection of Bibles, the most numerous in the world, comprising 8,250 copies, in 68 languages. The Solitude or Hermitage, the country residence of the king, is beautifully situated upon a hill, near the capital, and is remarkable for its fine prospect, magnificent halls, and handsome gardens. Population of Stuttgart, 46,000.

Ulm, on the Danube, is a place of some trade and considerable manufactures. Its cathedral, though unfinished, is one of the finest specimens of Gothic architecture. Population, 18,000. *Reutlingen*, a manufacturing town, with 13,000 inhabitants; *Tübingen*, 9,000 inhabitants.

noted for its university and other literary institutions ; and *Mull*, for its salt works, with 7,000 inhabitants, are the other principal towns.

This country was originally governed by counts and dukes. In 1806 it was erected into a kingdom, and formed a part of the Rhemish confederation. The present constitution was established in 1819.

CHAPTER XXIX. KINGDOM OF BAVARIA.

1. *Boundaries and Population.* Bavaria is bounded N. by Hesse, and the Saxon Duchies ; E. and S. by the Austrian empire ; and W. by Wirtemberg and Baden. The circle of the Rhine is separated from the rest of the kingdom, lying on the western side of the Rhine between Hesse, the Prussia province of the lower Rhine, and France. Area, 28,500 square miles ; population, in 1846, 4,504,874.

2. *Surface and Rivers.* In the northeastern part is the mountainous range, called *Fichtelgebirge*, or Pine Mountains, which is neither extensive, nor very lofty ; yet it gives rise to rivers, which, flowing into the Elbe, the Rhine, and the Danube, find their way to three different and distant seas. The *Schneeberg*, or Snowy Mountains, 3,500 feet high, is the highest summit. In the northwest, on the right bank of the Rhine, is the low mountainous ridge of the *Spessart*. The *Danube* traverses Bavaria from west to east ; its principal tributaries in this kingdom are the Isar and the Inn from the southwest. The *Mayns* or *Maine* rises in the centre of Bavaria, and flowing northerly and westerly through Baden and Hesse, empties itself into the Rhine, after a course of 250 miles. It is navigable to Bamberg. Much of the soil is unproductive from the rugged or marshy character of the surface, and there are extensive bogs and forests. The climate is mild and healthy.

3. *Industry.* Agriculture is much neglected, but a good deal of wine is produced. Bavaria is not favorably situated for trade, and its manufactures are not very extensive. In some parts, however, the people are distinguished for mechanical ingenuity ; and philosophical instruments, toys, and clocks, besides articles required for domestic consumption, are produced.

4. *Divisions and Towns.* The kingdom is divided into eight circles, called, till 1837, after the principal rivers, as in France, but now by ancient historical names.*

Munich (*Muenchen*), the capital, is situated on the Isar, and the embellishments and additions, which it has received within the last 20 years, have rendered it one of the handsomest cities in Germany. Its environs are pleasant, being adorned with numerous parks, gardens, and walks, and the streets of the city are in general spacious, with many elegant buildings. The literary institutions, scientific cabinets, collections of art, and the numerous publications issued from its presses, give Munich a high rank among the learned cities of Europe. It is not distinguished for trade or manufactures. The royal palace is one of the largest and most richly furnished royal residences in Europe ; the magnificent glyothothek or sculpture-gallery ; the pinakothek or picture-gallery ; the large and beautiful theatre, called the Odeon ; the New Palace, 680 feet long ; several of the 22 churches, &c., are sumptuous edifices. The university is one of the most respectable in Germany ; the public library contains 600,000 printed volumes, and 10,000 manuscripts. Population, 115,000. At *Schleisheim*, in the vicinity, there is a magnificent royal palace, with a rich collection of 1,500 paintings.

Nuremberg, in German *Nurnberg*, is an old town, and the antiquated appearance of its streets and buildings reminds the visiter of the Middle Ages, when it was one of the principal commercial and manufacturing cities of Europe, having been the great mart for the trade between Italy and the north of Europe. The inhabitants have been distinguished for their ingenuity and skill in the fine and useful arts, and philosophical and musical instruments, metallic wares, looking-glasses, toys, &c., are made here. The Nuremberg toys amuse children in all parts of the world ; they are made in great numbers by the peasants of the vicinity, assisted by their children, and sold so cheap as to be exported to all countries. Population, 48,000.

Augsburg, on the Lech, is a place of some trade and considerable manufactures. The arsenal, the principal in the kingdom, and its town-hall the finest in Germany, deserve to be mentioned. Augsburg is interesting in the history of the Reformation as the place in which the

* Upper Bavaria
Lower Bavaria

Palatinato
Upper Palatinato

Upper Franconia
Central Franconia

Lower Franconia
Suabia and Neuburg

Protestants presented to the German Diet and Emperor their *Confession of Faith*, drawn up by Luther, and known in history as the Confession of Augsburg. Population, 38,000. To the northeast is the village of *Blenheim*, rendered famous as the scene of the victory gained by the English general, Marlborough, over the united French and Bavarian armies, in 1704.

In *Ratisbon* or *Regensburg*, on the Danube, were formerly held the sessions of the German diet; the town-hall, in which that body sat, is still to be seen. Population, 22,000. *Wurzburg*, on the Maine, with 28,000 inhabitants, stands in the midst of a fertile and highly cultivated district, and contains a university, and other literary institutions, a handsome palace, citadel, &c. *Baireuth*, with 14,000 inhabitants, *Furth*, with 17,000, *Anspach*, 16,000, and *Passau*, 10,000, have an extensive trade and manufactures. In the circle of the Rhine is *Spire*, with 8,000 inhabitants, in which the German Diets were often held. It was at a Diet held here in 1529, that the religious reformers entered a *Protest* against certain acts of the emperor, whence their name of Protestants. *Deux-Ponts* or *Zwei-Brucken*, (i. e. Two Bridges, in Latin, *Bipons*) in this circle, is noted for the editions of the Greek, Latin, and French classics published there, and thence called *Bipont* editions.

5. *Religion, Government, &c.* There are three universities at Munich, Wurzburg, and Erlangen, of which the two first are particularly distinguished; and the government has paid much attention to the improvement and extension of the means of education. The Roman Catholic religion is professed by the majority of the inhabitants, but the Lutherans are numerous. The government is a constitutional monarchy; the legislative body is composed of two houses, that of peers, styled the counsellors of the realm, and that of the deputies of the clergy, cities, and landholders. Bavaria was an electorate of the old German empire; but, on the establishment of the Confederation of the Rhine, by Napoleon, in 1806, it was erected into a kingdom.

CHAPTER XXX. KINGDOM OF SAXONY.

1. *Boundaries and Population.* The kingdom of Saxony (*Sachsen*) is bounded N. by the Prussian provinces; S. and E. by the Austrian, and W. by the Saxon duchies and Reuss. Area, 5,700 square miles; population, in 1846, 1,836,433.

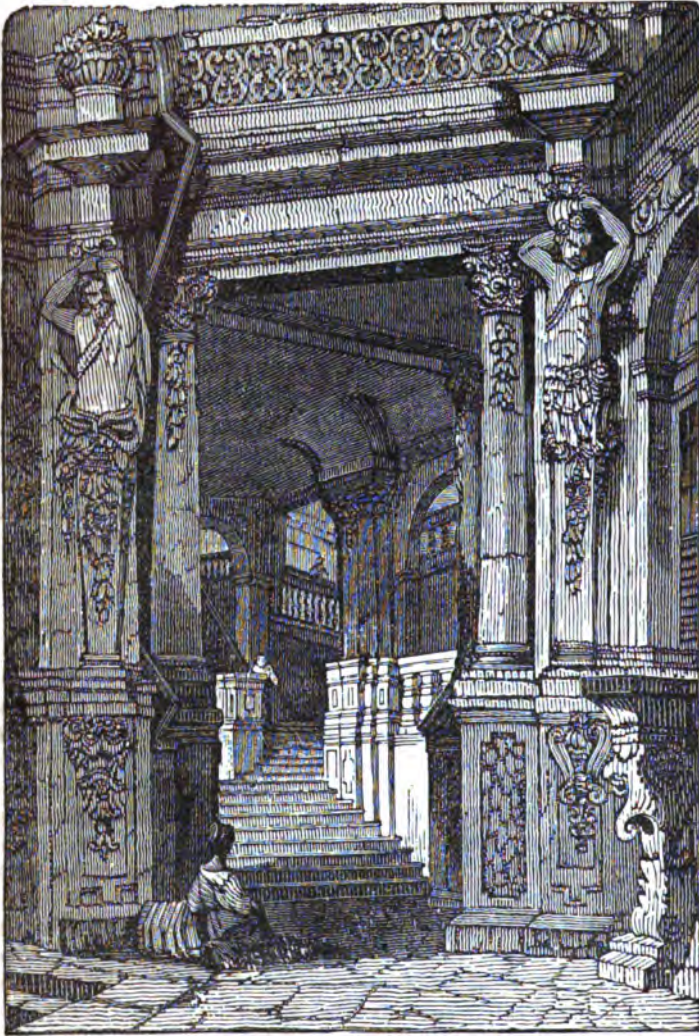
2. *Surface and Rivers.* The southern part is somewhat mountainous, being traversed by the *Erzgebirge*, a range of mountains, which separates Saxony from Bohemia in Austria; the northern part is more level. In the vicinity of Dresden rises a picturesque group of rocky hills, interspersed with rivulets and vales; this district is called the Saxon Switzerland, and is much visited. The Elbe is the only navigable river of Saxony.

3. *Industry.* Much attention has been paid to sheep breeding, and the Saxony wool is noted for its fineness; the number of sheep is about 2,000,000, yielding 4,500,000 lbs. of wool. The vegetable products are similar to those of the other parts of northern Germany. Saxony has lost its principal agricultural provinces, and little is raised in the kingdom except corn. Manufactures are active, and employ three fifths of the population; they consist of thread, linen, cottons, printed shawls, calicoes, lace, ribands, woollens, velvets; carpets, paper, cutlery, pottery, dye-stuffs, glass, and porcelain. The mountainous districts are rich in mines, which are skilfully worked, and their productions are manufactured into various articles; there are cannon founderies, and mineral dyes, as verdegis, smalt from cobalt, &c., are made. The book-trade is very extensive, and there are linen, woolen, and cotton manufactures. The pearl fishery is prosecuted in the river Elster.

4. *Religion, Education, and Government.* The great majority of the inhabitants are Lutherans; there are about 50,000 Roman Catholics, and 1,600 Herrnhutters. In no country in Europe has more attention been paid to education. There is a university at Leipsic, with numerous high schools and gymnasias, and there are common schools in all the parishes; so that the lower classes are, very generally, able to read and write. The government is a constitutional monarchy.

5. *Divisions and Towns.* The kingdom is divided into four circles, * which are subdivided into districts and bailiwicks.

Dresden, the capital, is a beautiful city, with spacious streets and elegant buildings, delightfully situated, in the midst of a rich district, through which broad and well-shaded avenues lead



Interior of the Palace, Dresden.

to the city. One of the finest bridges in Europe has been built over the Elbe, upon the banks of which Dresden is built. The palaces belonging to the royal family, several of those of the nobility, many of the 18 churches, its rich collections of art, cabinets of science, and learned establishments, particularly the picture gallery, one of the richest in the world, the collection of engravings, comprising 200,000 pieces, and the library, with 300,000 volumes, are among the ornaments of the city. Dresden has an active trade, supported by its extensive manufactures, including jewelry, musical instruments, gloves, cotton and woollen goods, &c. Population, 86,000, exclusive of many strangers who reside here, attracted by its treasures of art, its excellent institutions for education, and its agreeable situation. In the vicinity are *Pilnitz*, with a magnificent summer residence of the royal family, and *Koenigstein*, an impregnable mountain fortress, built upon a rock rising out of the plain to the height of 1,400 feet; it contains a well 1,200 feet deep.

Leipsic or *Leipzig* is a well-built town, pleasantly situated in an extensive plain, and is chiefly remarkable for its trade and manufactures. Three great fairs are held here annually, which are considered among the most important in the world. The number of purchasers who assemble at these fairs, is 8,000 or 9,000, and the amount of the sales is between 15,000,000 and 20,000,000 dollars. The book fairs, in particular, are unique, and Leipsic is the greatest book market in the world. The university here is one of the best in Germany. Two celebrated battles have been fought on the plains of Leipsic; in 1631, the Swedish king, Gustavus Adolphus defeated the troops of the empire here, and thus saved the Protestant cause in the north of Germany; in the great battle of 1813, one of the most important in modern times, Napoleon was obliged to retreat before the emperors of Russia and Austria, and the king of Prussia, after a protracted resistance of several days. Population of Leipsic, 60,000

Freyberg, with 12,000 inhabitants, a celebrated mining town, is surrounded by rich silver mines, which, with those of copper and lead, employ 5,000 laborers. The mining academy is the most remarkable institution. *Chemnitz*, noted for its cotton manufactures, has 28,000 inhabitants; *Meissen*, with 4,000, is noted for its porcelain, and *Bautzen*, with 12,000, for its

trade and manufactures. The electorate of Saxony was raised to the dignity of a kingdom in 1806 ; but the limits of the kingdom were very much reduced by the Congress of Vienna, in consequence of the adherence of the king to the cause of Napoleon.

CHAPTER XXXI. KINGDOM OF HANOVER.

1. *Boundaries and Population.* The kingdom of Hanover is bounded north by the German Ocean ; east by the Elbe, which separates it from Denmark, by Mecklenburg-Schwerin, and by Prussia ; south by Prussia and Electoral Hesse, and west by the Netherlands. Area, 14,600 square miles ; population, in 1845, 1,773,711.

2. *Surface and Soil.* The *Hartz Mountains* extend through the southern part ; the highest summit, the *Brocken*, has an elevation of 3,650 feet. These mountains are rich in minerals, yielding some gold, with much silver, iron, lead, copper, &c. They are well-wooded, and the forests are also a source of wealth to the inhabitants. The *Brocken* is famous as the supposed resort of the German witches, and of the wild huntsman of the *Hartz*. What is called the *Spectre of the Brocken*, is the magnified and distorted image of the spectator, reflected under certain circumstances from an opposite cloud. The northern part of Hanover is level, forming a part of the great European plain, which extends along the North and Baltic seas, from Paris to Moscow. In the south, the valleys are fertile ; in the north, are many barren heaths and moors. There are many shallow lakes, and on the coast is a wide bay, formed by the bursting in of the sea in 1277, when above 50 villages were destroyed. In East Friesland, is a subterranean lake, so thickly overgrown, that wagons pass over it. The climate is not agreeable. The winters are severe, and even in the greatest heats of summer, frosty days are not uncommon. The temperature is very variable.

3. *Rivers.* The *Ems* is a navigable stream, which flows northerly through the western part of the kingdom into the North Sea ; the *Weser*, which traverses the kingdom from south to north, and the *Elbe*, which washes its northern boundary, empty themselves into the same sea.

4. *Industry.* Agriculture is in general in a low state ; the heaths of the north are not susceptible of cultivation, but they are used as sheep-walks, or for the raising of bees. The mines and forests of the *Hartz* are diligently worked, and boards, iron, and copper, are, with cattle, the chief articles of export. The inland trade, favored by the *Weser* and *Elbe*, is considerable, but the foreign commerce is not extensive ; the articles imported are manufactured goods.

5. *Religion, Education, and Government.* About four fifths of the inhabitants are Lutherans, the rest are Roman Catholics, Mennonites, and Jews. The government is a limited monarchy, but the representative principle is imperfectly in operation. There is a university at *Gottingen*, one of the best in Germany, and the gymnasias and common schools are numerous.

6. *Divisions and Towns.* The kingdom is divided into 6 governments,* taking the names of their capitals, and the captainship (*Berghauptmannschaft*) of *Clausthal*.

Hanover, the capital, situated in a sandy plain upon the *Leine*, contains a population of 40,000 inhabitants, employed in commerce and manufactures. Hanover belonged to the Hanseatic league during the Middle Ages, and it has an antiquated appearance. The houses are generally of brick and timber in alternate layers, and resemble in appearance the stern of a ship of the 16th century. The date of their erection is always marked upon them. In those of 1565, each story projects over the one below it, and all are embellished with confused mixtures of medallions, Pagan deities, warriors, and verses from the *Psalms*. The palace is an elegant structure of hewn stone.

Gottingen, situated in a fertile valley on the *Leine*, is one of the literary capitals of the world. Its university is the principal in Germany, or inferior only to that of Berlin. The library, the richest in the world in the department of modern literature, has 300,000 volumes. The observatory is furnished with excellent instruments ; the botanical garden is one of the best in Europe ; the collections of natural history, the cabinets of natural philosophy, &c., and the valuable journals published here, render *Gottingen* the resort of the studious from all parts of the world. Population, 11,000.

Hildesheim, with 13,000 inhabitants ; *Luneburg*, with 12,000, and *Osnaburg* or *Osnabruck*, with 11,000, have considerable manufactures.

* Hanover, Hildesheim, Luneburg, Stade, Osnaburg, Aurich.

Emden is the principal port and commercial town in the kingdom. Population, 11,000.

7. *History.* Hanover was one of the electorates of the old German Empire ; and early in the last century the elector ascended the throne of Great Britain ; the two countries were not, however, politically united. In 1815, Hanover was raised to the rank of a kingdom, and, as the succession is in the male line, it became detached from the British crown on the succession of the present Queen to the latter, the Hanoverian crown passing to the first male heir of the late British king.

CHAPTER XXXII. GRAND DUCHIES OF MECKLENBURG.

1. *Boundaries, &c.* The two grand duchies of Mecklenburg lie between the Baltic on the north, Prussia on the south and east, and Hanover and Denmark on the west. They are both limited monarchies, and the inhabitants, with the exception of some Jews and a few Roman Catholics, are Lutherans. The whole territory is a plain, interspersed with low hills. The shore is protected by extensive downs of sand. The chief river is the *Elbe* ; there are a number of lakes in the country. Agriculture is the chief occupation, and is well managed. Great quantities of apples are exported. The rearing of cattle is carried on extensively ; the horses of this country are much esteemed.

2. *Mecklenburg-Schwerin.* The Grand Duchy of Mecklenburg-Schwerin has an area of 4,700 square miles, with 524,000 inhabitants. The capital, *Schwerin*, prettily situated upon a lake of the same name, has 18,000 inhabitants. The grand duke usually resides in the village of *Ludwigslust*, where is a magnificent palace. *Rostock*, the largest town in the duchy, has a port on the Baltic, with considerable commerce and manufactures. It contains a university and some other literary institutions. Population, 19,000. *Wismar*, with 10,000 inhabitants, has a good harbor on the Baltic, and some trade and manufactures.

3. *Mecklenburg-Strelitz.* The Grand Duchy of Mecklenburg-Strelitz lies to the east of the preceding, and has an area of 1,100 square miles, with 94,406 inhabitants. *New Strelitz* is the capital and residence of the grand-duke. Population, 7,500.

CHAPTER XXXIII. GRAND DUCHY OF OLDENBURG.

1. *Boundaries and Extent.* This Grand Duchy consists of 3 distinct territories. 1st, The *Duchy of Oldenburg*, bounded north by the German Ocean ; east, south, and west, by Hanover. 2d, The *Principality of Lubeck*, inclosed in the Danish dukedom of Holstein. 3d, The *Principality of Birkenfeld*, on the Rhine, nearly surrounded by the Prussian territory. Oldenburg has the German Ocean on the north, and Hanover on the three other sides. Area, 2,500 square miles ; population, 279,000. Much of the country is low and wet, and is intersected by canals and dikes, to drain it, or to defend it from inundations.

2. *Towns.* The capital, *Oldenburg*, is a pretty town, on the Hunte, a tributary of the Weser, which is navigable by small vessels. Population, 8,000. *Eutin* and *Birkenfeld* are capitals of the detached territories, the former in the Danish-German provinces, and the latter in the Prussian province of the Lower Rhine. The government is an absolute monarchy.

CHAPTER XXXIV. SAXON DUCHIES.

1. *Boundaries.* These States are bounded on the north by Prussia ; east by Reuss and the kingdom of Saxony ; south by Bavaria, and west by Hesse-Cassel. The inhabitants are Lutherans, with few Roman Catholics, and the forms of government constitutional monarchy.

2. *Saxe-Weimar.* The Grand Duchy of Saxe-Weimar consists of 3 detached parts, the principalities of Weimar and Eisenach, and the circle of Neustadt. Area, 1,425 square miles ; population, in 1846, 257,753.

Weimar, the capital, is agreeably situated in a pleasant valley, and contains a number of handsome edifices, and learned establishments. The theatre, the grand ducal residence, the public library of 130,000 volumes, the geographical institute, and the fine English park, are among the objects worthy of mention. Weimar has acquired much literary celebrity, from its



Schiller's House, at Weimar.

having been, in the beginning of the present century, the residence of many distinguished German scholars and authors, attracted thither by the patronage of the court. Schiller, Herder, Göthe, Wieland, and Kotzebue, with others, were assembled here at the same time. Population, 10,000.

Jena, in a charming valley, contains an ancient university, which ranks among the first in Germany; the library comprises 100,000 volumes. In 1806, Napoleon gained a complete victory over the Prussians here. Population, 5,000.

Eisenach, 8,000 inhabitants, is a well-built town, with some manufactures. In its vicinity on the

Wartburg, is a mountain fortress, in which Luther was concealed by his friends, when put under the ban of the empire for his religious doctrines. Here he spent nearly a year, and occupied his time in translating the New Testament into the vernacular tongue.

3. *Saxe-Coburg-Gotha*. The *Duchy of Saxe-Coburg* consists of 3 detached portions, the principalities of Coburg, of Gotha, and of Lichtenberg. Area, 790 square miles; population, 134,000. *Gotha*, the capital, is a manufacturing town, with 12,000 inhabitants; here are the ducal palace, and a fine public library of 150,000 volumes. In the vicinity is the celebrated observatory of Seesberg. *Coburg*, with 8,000 inhabitants, has several literary establishments, and considerable manufacturing industry.

4. *Saxe-Altenburg*. The *Duchy of Saxe-Altenburg* has an area of 500 square miles, with 129,200 inhabitants. *Altenburg*, the capital, is a place of some trade and manufactures, with 15,000 inhabitants.

5. *Saxe-Meiningen-Hildburghausen*. The *Duchy of Saxe-Meiningen* has an area of 900 square miles, and a population of 160,000. *Meiningen*, the capital, is a manufacturing town, with 6,000 inhabitants. *Hildburghausen* has a population of 4,000 souls.

CHAPTER XXXV. DUCHY OF BRUNSWICK.

THIS State consists of 3 entirely detached portions, surrounded by the Hanoverian and Prussian provinces. Area, 1,500 square miles; population, 270,000. *Brunswick*, the capital, is a large and well-built city, which contains a number of public edifices, and several literary institutions of some celebrity. Its trade and manufactures are important, and its fairs rank next to those of Leipsic and Frankfort. Population, 40,000. *Wolfenbittel*, in the vicinity, with 8,000 inhabitants, contains a very large and valuable library, considered one of the richest in Europe; it comprises 200,000 printed volumes, and 10,000 manuscripts. The religion of the great majority of the people is Lutheran; the government is a constitutional monarchy. The breweries and distilleries, the manufactures of linen and leather, the porcelain work, and the iron, lead, and copper mines, employ many of the inhabitants.

CHAPTER XXXIV. HESSIAN STATES.

1. *Boundaries, &c.* The estates of the House of Hesse consist of the 3 states of Hesse Cassel, Hesse-Darmstadt, and Hesse-Homburg. They lie between Prussia, Bavaria, Baden, and Nassau. The inhabitants are chiefly Protestants, but about one fifth are Roman Catholics. The government of Hesse-Darmstadt is a constitutional monarchy; the others are absolute.

2. *Electoral Hesse*. Hesse-Cassel, or the principality of Electoral Hesse, has an area of 4,400 square miles, with 754,000 inhabitants.

Cassel, the capital, situated upon the Fulda, has 32,000 inhabitants. It has several handsome squares, and a great number of important public institutions, learned and charitable. The palace is one of the most magnificent in Germany. Cassel was the capital of the kingdom of Westphalia, erected by Napoleon, in 1807, and dissolved on his overthrow, in 1814. In the neighborhood is the castle of Wilhelmshohe, one of the most beautiful and splendid princely residences in Europe.

Hanau, an active manufacturing town, with 10,000 inhabitants; *Fulda*, 9,000, with its literary institutions; and *Marburg*, 7,000, with its university, to which belongs a library of above 100,000 volumes, are places of some note. *Smalkalden*, with 5,000 inhabitants, is interesting in history, as the place in which the Protestant princes of Germany united, in 1531, in a league to defend their faith against the emperor and the Catholic princes.

3. *Hesse-Darmstadt*. Grand-Ducal Hesse or Hesse-Darmstadt is divided into 2 detached parts by Hesse-Cassel. Area, 3,200 square miles; population, 852,000.

Darmstadt, the ducal residence, has 31,000 inhabitants. Its library of 90,000 volumes, the museum, the vast arsenal, the palace, &c., are the objects of most interest. To the south lies *Worms*, with 7,000 inhabitants, one of the oldest cities in Germany, and long conspicuous in the history of the empire. At the diet held here in 1521, Luther vindicated his conduct and defended his faith before the emperor, princes, and prelates of Germany, by whom he was put under the ban of the empire.

Mayence, *Maintz*, or *Mentz*, is an ancient city, situated at the confluence of the Maine with the Rhine; its dark and narrow streets, and its old buildings, give it a gloomy appearance, but it is a place of historical interest, and its environs are remarkable for their beauty. Its citadel and vast fortifications, belonging to the system of military works erected by the German confederation, render it the strongest town in Germany. Long the capital of a sovereign archbishopric, Mentz still contains numerous ecclesiastical buildings. Here is still shown the house in which Faust and Guttenberg, natives of Mentz, made their first essays in the art of printing. Population, 34,600. At *Giessen*, with 7,000 inhabitants, there is a university.

4. *Hesse-Homburg*. The landgraviate of Hesse-Homburg, consists of 2 distinct parts, the one situated in Hesse-Darmstadt, and the other between the Bavarian circle of the Rhine, and the Prussian government of Coblenz. Area, 166 square miles; population, 24,400. The capital is *Homburg*, with 4,500 inhabitants.

CHAPTER XXXVII. DUCHY OF NASSAU.

NASSAU lies between the Prussian province of the Lower Rhine and Hesse-Darmstadt. The government is a limited monarchy; rather more than half of the inhabitants are Protestants. Area, 1,720 square miles; population, 424,600.

Wiesbaden, the capital, is a prettily built city, in a delightful situation. Its 16 hot springs, which all the year round have a temperature of 140°, attract from 10,000 to 12,000 visitors annually. Population, 13,000. *Niederselters* is noted for its mineral spring, the famous Selter water, of which about 2,000,000 bottles are sold annually; *Hochheim*, *Johannisberg*, and *Rudesheim* for their wines, and *Langenschwalbach* for its mineral waters.

CHAPTER XXXVIII. PRINCIPALITY OF WALDECK.

THIS little State, with an area of 460 square miles, and 56,600 inhabitants, is surrounded by the Prussian and Hessian Territories. The country of Pyrmont is a detached part, bordering on Hanover and Lippe-Detmold. The religion is Lutheran; the government constitutional. *Arolsen*, the capital, has 1,700 inhabitants. *Pyrmont*, the principal town, is much visited for its thermal saline waters. Population, 2,400.

CHAPTER XXXIX. THE ANHALT DUCHIES.

1. *Boundaries*. These States are surrounded by the Prussian province of Saxony. The inhabitants are Protestants; the governments constitutional.

2. *Anhalt-Dessau*. The duchy of Anhalt-Dessau has an area of 358 square miles, and a

population of 68,000. *Dessau*, the capital, is a pretty town, in a charming situation, with 12,800 inhabitants.

3. *Anhalt-Bernburg*. The duchy of Anhalt-Bernburg has an area of 340 square miles, and 43,800 inhabitants. *Bernburg*, the capital, has a population of 5,300 souls.

4. *Anhalt-Coethen*. The duchy of Anhalt-Coethen has an area of 310 square miles, and 43,700 inhabitants. The capital is *Coethen*, on the *Ziethen*, with a population of 6,800. Its administration, by the extinction, in 1847, of the reigning family, has devolved on the other two duchies in commo*nd*.

CHAPTER XL. SCHWARTZBURG PRINCIPALITIES.

1. *Boundaries*. These principalities are surrounded by the Prussian province of Saxony and the Saxon duchies. The inhabitants are Protestants.

2. *Schwartzburg-Rudolstadt*. The principality of Schwartzburg-Rudolstadt has an area of 410 square miles, with 68,000 inhabitants. The government is constitutional in its forms. *Rudolstadt* is the capital. Population, 5,500.

3. *Schwartzburg-Sondershausen*. The principality of Schwartzburg-Sondershausen has 68,000 inhabitants, on an area of 360 square miles. The government is absolute. The capital is *Sondershausen*, with 5,500 inhabitants.

CHAPTER XLI. THE REUSS PRINCIPALITIES.

1. *Boundaries*. The States of the princess of Reuss are surrounded by the Saxon duchies, Saxony, and Bavaria. The inhabitants are Protestants, and the forms of government constitutional.

3. *Reuss-Greiz*. The principality of Reuss-Greiz has an area of 145 square miles, and 34,100 inhabitants. *Greitz*, the capital, has some manufactures, and a population of 7,000.

3. The territories of the younger were divided previous to 1848 between two princes, but now united, are 447 square miles in extent with 75,00 inhabitants. *Schleitz*, the capital, has 5,000 inhabitants. *Geva* romantically situated on the *Elser* has 10,000.

CHAPTER XLII. THE LIPPE PRINCIPALITIES.

1. *Boundaries*. The estates of the Lippe family are bounded by the Prussian government of Minden, by Brunswick, and Electoral Hesse. They are governed according to constitutional forms; the inhabitants are Protestants.

2. *Lippe-Detmold*. The principality of Lippe-Detmold has 108,300 inhabitants, with an area of 440 square miles. *Detmold*, with 5,000 inhabitants, is the capital; *Lemgo*, 3,800, the principal town.

3. *Lippe-Schaumburg*. The principality of Schauenburg-Lippe has an area of 210 square miles, with 31,000 inhabitants. Its capital, *Buckeburg*, has 2,100 inhabitants.

CHAPTER XLIII. THE PRINCIPALITY OF LIECHTENSTEN.

This little State, with an area of 54 square miles, and 6,000 inhabitants, professing the Roman Catholic religion, is situated between Switzerland and the Tyrol. The prince usually resides at Vienna; the village of *Liechtenstein*, with about 1,000 inhabitants, is the capital. The government is a limited monarchy.

CHAPTER XLIV. THE HOHENZOLLERN PRINCIPALITIES.

1. *Boundaries*. These 2 States are nearly surrounded by the kingdom of Wirttemberg. The inhabitants are Roman Catholics, and the governments limited monarchies.

2. *Hohenzollern-Hechingen*. The principality of Hohenzollern-Hechingen has an area of 130 square miles, with 20,000 inhabitants. Its capital is *Hechingen*; population, 3,000.

3. *Hohenzollern-Sigmaringen*. The principality of Hohenzollern-Sigmaringen has an area of 390 square miles, with 42,600 inhabitants. *Treuchtlingen*, the principal town, has a population of 3,000. The capital, *Sigmaringen*, is an insignificant town, with 1,500 inhabitants.

CHAPTER XLV. LORDSHIP OF KNIPHAUSEN.

This Lilliputian State, the smallest in Europe, has an area of 18 square miles, with 2,860 inhabitants. It lies upon the northern coast of Oldenburg. The capital, *Kniphausen*, is a castle of the sovereign lord, surrounded by about 50 inhabitants. *Kniphausen*, though with some special privileges is dependent on Oldenburg.

CHAPTER XLVI. THE FREE CITIES.

1. *Bremen*. The Republic of Bremen comprises the city of that name, and the adjoining territory, lying on the Weser, and surrounded by the Hanoverian territories. Area, 68 square miles; population, 73,000. The city of *Bremen* is a place of considerable commerce, though the larger vessels are obliged to discharge their cargoes below. The government is administered by 4 burgomasters and a senate, all of whom are chosen for life. The town is surrounded by gardens and walls, shaded with trees, which occupy the site of the old fortifications. Population, 53,000.

2. *Hamburg*. The territories of Hamburg are surrounded by the German provinces of Denmark. The bailiwick of Ritzbüttel is detached from the rest of the States, lying at the mouth of the Elbe. The bailiwick of Bergedorf belongs to Hamburg and Lubeck in common. Area, 150 square miles; 188,000. The government is aristocratic, being vested in 4 burgomasters, and a council, which fill their own vacancies.

The city of *Hamburg*, on the northern bank of the Elbe, 75 miles by the river, from the sea, is built partly on a great number of islands formed by the Elbe and the Alster. It is divided by a canal into the Old and New Town. The whole city is surrounded by a lofty rampart, and a broad ditch. Most of the streets are narrow and dark, especially in the Old Town, and the houses are mostly in the Dutch fashion, 6 or 7 stories high. A few of the streets are handsome, and bordered by long and wide canals. The ramparts are planted with trees, and are so wide that they admit several carriages abreast. The churches are mostly Gothic, with beautiful altars, large organs, and lofty spires, covered with copper, which makes a brilliant appearance in the sun. The exchange is a noble structure, and Hamburg has always enjoyed a thriving commerce. It has manufactures to a considerable extent of cotton and linen cloths, and refined sugars; it has many schools, libraries, and literary institutions. Population, 137,000. *Cuxhaven*, upon the coast, is a little village important for its port, from which sail regular packet and steam vessels to Amsterdam and Harwich.

3. *Lubeck*. The territories of Lubeck consist of several detached portions, situated on the Baltic, and bounded by the Danish and Mecklenburg territories. Area, 140 square miles; population, 46,000. The government resembles that of the other free cities of Germany. The city of *Lubeck*, on the Trave, is still a place of considerable business, though much declined since the time when it was the head of the Hanseatic* towns, and its fleet commanded the Baltic. Its fortifications are now converted into promenades. Population, 25,000.

4. *Frankfort*. This republic is principally bounded by the Hessian States. Area, 92 square miles; population, 68,000. The burgomasters are chosen annually, and, with the legislative senate and executive assembly, administer the government. *Frankfort on the Maine*,

* The Hanseatic League was a celebrated association of the Middle Ages. Toward the middle of the 13th century both sea and land were covered with pirates and robbers, and the flourishing commerce of Germany was especially exposed. This suggested a league for mutual assistance, and a confederacy was formed in 1239, between Hamburg, and the districts of the Ditmarschen and Hadeln, which was joined by Lubeck in 1241. In a short time, the league increased to such a degree, that it comprised 85 towns. They established 4 great factories abroad; namely, at

London, Bruges, Novgorod, and Bergen in Norway, and grew so powerful that they ruled by their treasures and arms a great part of northern Europe. On one occasion they armed a fleet against Denmark, of 248 vessels, and 12,000 soldiers. When the dangers of trading by sea and land diminished, the league declined. The last assembly was held at Lubeck, in 1630. The most distinguished towns in the confederacy, were Lubeck, Hamburg, and Bremen. These 3 cities, with Dantzic, formed a new league after the dissolution of the former.

the capita., is the seat of the German Diet, and the German emperors were crowned here, until the dissolution of the empire, in 1806. It is one of the most important trading towns in Germany, and its fairs, though not what they were when they attracted 50,000 strangers to their stalls, are among the richest and most frequented in Europe. Frankfort contains several noteworthy buildings, collections, and institutions. Population, 58,000.

CHAPTER XLVII. THE KINGDOM OF HOLLAND, OR THE NETHERLANDS.



1. *Boundaries and Extent.* This kingdom is bounded north by the German Ocean, east by Germany, south by Belgium, and west by the German Ocean. It extends from $51^{\circ} 10'$ to $53^{\circ} 25'$ N. lat., and from $3^{\circ} 23'$ to $7^{\circ} 5'$ E. long., and contains 13,900 square miles.

2. *Islands.* A group of islands lie on the western coast, in the channels of which, the waters of the Rhine, Maese, and Scheldt find their way to the sea. The largest are *Beierland*.



Man of Beveland.



Woman of Beveland.



Woman of Walcheren.

Overflakkee, Schouwen, North and South Beveland, and Walcheren. At the mouth of the Zuyder Zee are the islands of *Texel, Vlieland, Schelling, and Ameland.* *Schokland* is near the head of the sea.

3 *Rivers.* The *Rhine* enters the country from Germany, and divides into two branches ;



Fisherman of Schokland mending his net.

the southern, or *Waal*, joins the *Meuse*; the northern sends off a branch under the name of the *Yssel*, into the *Zuyder Zee*; another, called the *Leck*, to the *Meuse*; a third, called the *Vecht*, into the *Zuyder Zee*, and, after a course of 850 miles, enters the North Sea, below *Leyden*, a feeble stream. The *Meuse* or *Maas* rises in France, and, flowing through Belgium, empties itself, by two principal branches, into the North Sea. The *Scheldt* enters the Netherlands from Belgium, and divides into two principal branches, which carry its waters into the North Sea.

4. *Seas and Lakes.* The *Zuyder Zee* is a large inland bay, in the northern part, 60 miles in extent. The *Sea of Haarlem* is a lake, 14 miles in length, to the west of the *Zuyder Zee*, and communicating with it by the river *Y*, which passes by *Amsterdam*. There are many small lakes in the northern province of *Friesland*.

5. *Shores and Dikes.* The shores are remarkably flat and low, and a great part of the country would be laid under water by the tides, were it not for the enormous dikes erected along the coast. These dikes employ annually more men than all the corn of the province of *Holland* can maintain. They are mostly 30

feet in height, and 70 broad at the bottom. They are built of clay, faced on the land side with wood and stone, and toward the sea with mats of rushes and sea-weed. In *North Holland*, during violent storms, they cover the outsides of the dikes with sail cloth. There is a board of dike commissioners, whose duty it is to superintend all the embankments in the country; and there are many subordinate commissions all over the kingdom, who are required to report from time to time to the High Board the condition of the dikes in their district. Notwithstanding all these efforts to preserve the country, the sea is still gaining on the coast.

6. *Climate.* The number of lakes, rivers, and canals in *Holland*, generate a cold and damp air. Chilling, northeasterly winds prevail during winter; the *Zuyder Zee* is frozen for several months. The weather is subject to sudden changes, and the climate, on the whole, is insalubrious. Few of the Dutch live to a great age.

7. *Soil.* The soil is generally a sandy loam, sometimes interspersed with tracts of clay, but more frequently with extensive districts of sand. Peat bogs are common.

8. *Face of the Country.* The whole country is low and flat, and was compared by *Sir William Temple* to the sea in a calm. A great part of the territory is below the level of the sea. From the top of a steeple, the eye ranges over a boundless plain, intersected by canals and dikes; meadows of the freshest verdure, covered by numerous herds of cattle; towns, villages, and detached houses, embosomed in trees; numerous vessels continually gliding along the canals, and by the animation which they give to the landscape, compensating in some degree for its want of bold and picturesque beauty. In some places, low marshy tracts or shallow lakes have been drained, and their former beds are fenced round with dikes; these spots are called by the inhabitants *polders*. As there is a constant filtration of water from the sea and rivers through the dikes, and there is no natural outlet for that which falls in rain, it becomes necessary to keep these low tracts clear by artificial means. For this purpose pumps moved by windmills are used in great numbers, and the water is pumped out, as from a leaky ship, into the rivers and canals. Hence, *Holland* has been humorously described as a country drawing 50 feet of water.

9. *Divisions.* This kingdom consists of 12 provinces:

North Holland,
South Holland,
Zealand,

Utrecht,
Guelderland,
Overijssel,

Drenthe,
Groningen,
Friesland,

North Brabant,
Limburg,
East Luxembourg.

10. *Canals.* Canals are as numerous in Holland as roads in other countries, and the country is so level, that they scarcely need a lock in their construction. Some of them are as old as the 10th century. The most noted is the *Great Dutch Canal*, 50 miles in length, from Amsterdam to the Helder. It is 124½ feet wide at the surface, and 20 feet 9 inches deep. It has two tide locks at the extremities, and two sluices with flood-gates in the intermediate space. The width is sufficient to allow two frigates to pass each other. This canal was begun in 1819, and completed in 1825, at a cost of about 4,400,000 dollars. It is highly convenient for vessels sailing from Amsterdam, which otherwise are liable to be detained by head winds for several weeks.

11. *Towns.* *Hague*, formerly the capital of the kingdom, situated not far from the sea, and

intersected by numerous canals, is one of the best built cities of Europe. It contains the royal palace, the house of the States-General, numerous private palaces, &c. Population, 66,000. In the neighborhood, is the castle of Ryswick, where was concluded the celebrated treaty of 1697.

Amsterdam, the principal city, and capital of the kingdom, and one of the chief commercial places of Europe, is a well-built town, upon the Amstel. It is divided by that river into two parts, and intersected by numerous canals, which form 90 islets, communicating with each other by 280 bridges. The streets mostly border



Fish-woman of Hague.



Woman and Boy of Amsterdam.

on the canals, and are well paved; several of them are remarkable for their rich display of shops, filled with the productions of all parts of the world, and the houses are gayly painted of

different colors. The city contains many literary institutions, scientific establishments, and collections of art; among the public edifices, the stadt-house, built upon 13,600 piles, and nearly 300 feet long, is the most magnificent. Amsterdam, once the queen of the ocean, and the centre of the commerce of the world, is still important from the great wealth of its mercantile houses, and the extent of its commercial operations. Its fine quays along the river Y or Wye, which forms its port, its vast naval magazines and ship-yards, and the industry of its inhabitants, together with its population of 225,000 souls, attest its former splendor and present prosperity.



Match-woman of Rotterdam



Woman of Rotterdam

Rotterdam is the second commercial city in the kingdom, and, by its deep canals, will admit the largest vessels to the doors of its warehouses. The style of Dutch architecture is more particularly striking in this city; the houses are very high, with projecting stories; they are built of very small bricks, and have large windows. This was the birthplace of Erasmus, and on the bank of one of the canals stands his statue in bronze. Population, 83,000.

Harlem, with 24,000 inhabitants, is noted for its bleacheries, cotton and silk manufactories, type-foundries, and particularly for its gardens, in which are raised an immense number of flowers, forming an important branch of trade. Harlem disputes with Mentz the honor of the invention of printing; and the house of Laurence Koster, who claimed that glory, is still shown here. The town-house, one of the handsomest in the country, the celebrated organ, with 8,000 pipes, and the many scientific and literary institutions and collections, deserve to be noticed.

Leiden upon the Rhine, contains a celebrated university, long one of the most famous in Europe, and its scientific establishments are numerous and important. Its manufactures, particularly of salt, are extensive. Population, 36,000. **Utrecht** is also distinguished for its university and its manufactures. Population, 45,000. Here was concluded the important peace of Utrecht, 1713, which placed England at the head of the European powers.

Groningen is the principal place in the northern part of the kingdom. It is a flourishing and industrious town, and contains a university. Population, 30,000. **Leeuwarden**, the capital of Friesland, with 22,500 inhabitants, **Hinlopen** on the Zuyder Zee, and **Bois-le-Duc** or **Heriogenbosch**, the capital of North Brabant, and a strongly fortified town, with 20,500, are important trading and manufacturing places. **Dordrecht**, 20,000 inhabitants, has an active commerce, and is noted in history for the Protestant synod held there. **Delft**, 17,000 inhabitants, gives its name to a sort of earthen ware made there in great quantities; the celebrated **Groenius**



Lady of Leeuwarden.



Woman of Hinlopen.

was born there. **Middelburg**, the capital of Zeeland, with 15,000 inhabitants; **Flushing**, noted for its excellent harbor, its fortifications, and its vast ship-yards, with 5,000 inhabitants; **Breda**, an important frontier fortress; **Schiedam**, 10,000 inhabitants; and **Nimeguen**, 15,000, are important towns. The town of **Texel**, on the island of the same name, is an important naval station.

Muenstrich, the capital of Dutch Limburg, is a strong fortress containing 21,000 inhabitants. The eastern part of the German province of Saxemburg has been assigned to Holland. It contains the city of **Saxemburg**, with 10,000 inhabitants one of the strongest fortresses in Europe and occupied by the troops of the German confederation. This province is wholly separated from the rest of Holland.

Saardam, on the river Zaan, is a considerable town of wooden houses, almost all of which are painted green. It has considerable commerce and ship-building; almost every house is surrounded by water, and forms, with its garden, a small island. The house is still to be



House in which Peter the Great lived.

By draining the bogs and marshes, excellent meadows are created, upon which cattle fatten to a vast size; the utmost attention is paid to their warmth and cleanliness, and even in the summer these animals appear in the meadows clothed with apparently ludicrous care, to keep off the flies. The four provinces of North and South Holland, Groningen, and Utrecht, have produced, in butter and cheese, sometimes 31,000,000 dollars annually. Holland is, indeed, one great meadow, intersected by canals, and traversed by rows and groups of trees. Wheat, rye, barley, oats, peas, beans, and buckwheat are raised for internal consumption; and madder, rape seed, hops, tobacco, clover seed, mustard seed, flax, hemp, and poppy oil, for consumption and exportation. Much attention is paid to horticulture; the gardens and orchards are very neat. Culinary vegetables are even exported to Norway and other countries.

13. *Commerce.* Holland became at an early period a maritime power, and established settlements in various parts of the globe. The Dutch East India Company was founded in 1602, and its prosperity was such, that the shares were afterwards sold at 1,000 per cent advance. The manufacturing industry of the country was one great support of its commerce, and the linens, silks, and woollens of Holland were spread over all Europe. The political revolutions of modern times have been ruinous to the Dutch commerce; yet the trade is still considerable, and extends to all parts of the world. The large capitals of the Dutch merchants, their central situation, their extensive and valuable foreign possessions, and the considerable surplus of native commodities for exportation, secure to them a large trade. Holland exports, besides its own produce above mentioned, the herring, stockfish, whalebone, and oil furnished by its fisheries; the coffee, sugar, rum, cotton, and spices of its colonies; the gin and tobacco-pipes of its manufactories, and several articles of German produce and manufacture. Much of the commerce is carried on by native vessels. Vast floats of timber are received by the Rhine from Switzerland and Germany.

14. *Manufactures.* The manufactures of Holland have been greatly checked by the rivalry of the English. Before the French revolution, there was scarcely a manufacture which the Dutch did not carry on. In this they were assisted by the populousness of the country, the cheapness of labor, and, above all, by the water carriage, which gives an immense facility to all

* The little village of *Broek or Brock*, in North Holland, is the admiration of all visitors. Here Dutch cleanliness and nicety seem to be carried to perfection, indeed probably without a parallel in the world. No carriages of any description are allowed to enter the village, one street only excepted, which is considered as polluted, and is but thinly inhabited. The streets, with the above exception, are clean beyond all comparison; not a dog or a cat is to be seen in them at liberty; and there is a regulation by which no person is allowed to smoke, either in or out of doors, without a guard over the ball of the pipe, to prevent the ashes from falling out! Notice to this effect is posted up at the entrances of the village. The pavement of the street is inlay or mosaic work, formed of pebbles of every shape and color, shells, pieces of glazed brick, &c. The houses are painted in every part, within and without, of the most costly colors, and their whole appearance speaks the most minute attention to neatness; the windows are without a speck; everything has an air of freshness

seen here, in which Peter the Great of Russia lived, when learning the art of ship-building.*

12. *Agriculture.* The Dutch, by unwearied industry, have conquered every disadvantage of climate, soil, and territory. The humidity and coldness of the air are unfavorable to the culture of corn; the water is equally bad; the soil by nature produces hardly anything except peat, and the very possession of the territory is disputed by the sea. Yet the labors of the patient inhabitants have converted their boggy, insignificant territory into one of the richest spots in Europe. The corn raised is insufficient for home consumption, but the products of the dairy are abundant; the objects of culture being mostly connected with pasturage.

and a stranger looks in vain for a grain of dirt, or even a particle of dust. The houses are roofed with tiles so glossy, that, in the sunshine, they glitter like spar. Small gardens extend from one end of a street to the other, all ornamented in a way most suitable to the owner's taste, and not a blade of grass or a withered leaf is allowed to rest on the ground. The town is built partly round the banks of a small, circular lake, and from this lake flow, through most of the streets, small streams in a channel lined with brick on both sides. The numerous bridges over these small canals, afford an opportunity for exhibiting the taste of the inhabitants in fanciful devices, and in the intermixtures of bright colors. The houses have each two entrances, the one of which, generally painted black, is never opened but in the case of death in the family. The internal cleanliness of the houses corresponds with the external, and the people are equally cleanly in their persons, dress, and habits.

the operations of trade and industry. The manufactures are still considerable, and consist of woolen, linen, silk, cotton, tobacco, snuff, pipes, leather, &c. The distillation of gin is largely carried on.

15. *Fisheries.* The herring fishery has been prosecuted on a large scale by the Dutch, ever since the 12th century; the art of curing and barreling these fish was discovered here in 1316. In the middle of the 18th century, the business employed 100,000 fishermen. This business is still very considerable though greatly declined from what it used formerly to be. The whale fishery is also prosecuted, but on a small scale, and with little success.

16. *Inhabitants.* The Dutch are hardy, and can endure much labor and fatigue. The complexion of the females is not to be surpassed in clearness, but their forms are not universally distinguished for lightness. There are some Germans and Jews settled in Holland. The nobility are numerous, but not always rich.

17. *Dress.* The national dress is not much liable to the fluctuation of fashion; it is nearly the same as it was in the time of the duke of Alva. People of the higher class follow the French fashions, but the peasantry dress in a peculiar manner. The men have jackets, and



Villager of Guelders.



Countrywoman of Guelders.



Bride of Marken.

breeches of great capaciousness; they wear many huge buttons on their dress, and both sexes have wooden shoes. The females in common life wear close caps and long-waisted gowns; the female peasantry wear short petticoats with very long waists, and their dress is much padded and stuffed. There are many different costumes in the different districts.

18. *Language.* The general and written language is the Dutch, which is derived from the German; the Frisian is a dialect of the Dutch, used in some of the northern parts. The Dutch merchants generally are familiar with several languages.

19. *Manner of Building.* The architecture of the cities is neat and imposing; the ends of the houses are often placed towards the street, and the walls are filled with ornaments. The country houses are stiff and formal; they have frequently a motto over the gateway or front. The new buildings are few, but many old ones bear over their doors the date of the 14th or 15th century. The 1st of May is the time when tenants remove from houses; a practice common in New York, and which has there a Dutch derivation. At the windows in cities, are large glasses, so placed at angles with others, that they reflect the passengers in the street to the unobserved scrutiny of the parlor.

20. *Food and Drink.* A great part of the food of the common people consists in potatoes, salt meat, and fish. The garden vegetables are excellent and abundant. Raw gin is a universal

*Skipper of Friesland.**Skipper of Friesland's Wife.**Woman of North Holland.*

beverage, and takes the place of cider or beer, though some beer is used. The Dutch, however, from a phlegmatic temperament, and from the humidity of the climate, can take much spirits without injury ; they are not an intemperate people. No sign is more frequent over shops than that of tobacco, for no Dutchman is long without his pipe. Even the females of the common class are addicted to smoking ; the rooms of a public house, or of a *trekschuyt*, are filled with the thickest smoke, from never-dying pipes, which, says Professor Silliman, the Dutch "maintain, with vestal vigilance, under their noses."

21. *Diseases.* The diseases of Holland are not peculiar, though rheumatism and the maladies of a humid climate are common.

22. *Traveling.* Posting is less expeditious and convenient than in France ; but the roads are not more numerous than the canals, and a general method of traveling is, therefore, by the *trekschuyt*, or drag-boat ; this is 10 feet wide, and 50 long ; and in shape it resembles the common representations of Noah's ark. The expense does not exceed three cents a mile, and the rate of traveling is three miles an hour, which is so invariably the result, that distances, as in the East, are reckoned by hours, and not by miles. When frozen, the canals are traveled over by sleighs and skates. All persons skate ; the peasant girl skates to market, with her merchandise on her head, the senator to his assembly, and the clergyman to his church.

23. *Character, Manners, and Customs.* If we estimate the national character from the descriptions of the English, we should do it injustice ; for the commercial islanders are never just to commercial competitors, and the Dutch have often been their successful rivals. The Dutch are distinguished for frugality, neatness, and industry ; they are of a cold, phlegmatic temperament, but, when roused to passion, have as much ardor as any people. They are grave and heavy in appearance, and even children are sedate. They are quiet and domestic, and enjoy much happiness in their family circles. Generally they prefer gain to ambition, but in their dealings they are honest. The very soil they till is a monument of their perseverance and industry ; they live in a country of meadows reclaimed from the sea, and the acquisition is maintained only by continual vigilance, toil, and expense. In Holland, neatness is carried to excess ; in their kitchens, every metallic utensil is as bright as scouring can make it, and hung upon the walls for show, for neatness here is ostentatious ; the very tongs and shovel are "hung up for monuments." The principal utensils are of pewter and copper. One room in the house is held too sacred for common intrusion ; and the neatness and arrangement of this, is a peculiar study. In some of the villages, wagons are not permitted to pass through the streets ;

the front walks are scrubbed, sanded, and marked out in fanciful figures. The doors and porches are burnished, and the trees that shade them do not escape the brush. Little admittance is granted at the front door; and even at the back entrance, a shoe not perfectly satisfactory to the genius of the place, must be laid aside, and a slipper, which is kept for this purpose, worn during the visit.

The Dutch are profuse of time, but economical of money. All their conveyances, by sea or land, are slow, and "Dutch speed," has grown into a saying for tardiness. The economy, however, is not to be discovered in the public establishments, which are on a princely scale.

24. *Amusements.* The principal of the peculiar amusements of the Dutch are skating, and dancing at the licensed houses, where the most infamous class resort. It is common, for staid and respectable people, in family groups, to mingle in the dance, with those who have neither character nor modesty to lose. Skating is followed by both sexes; it is a graceful and healthful amusement. The females are generally dressed in white, and each one is attended by a man; generally they move with each a hand resting on the other's shoulder. They step simultaneously, as in marching. It is an interesting spectacle, to see many females, with florid complexions, and dressed in white, moving swiftly, and apparently without effort, like Camilla,

"When, like a passing thought, she fled
In light, away."

25. *Education.* There are 3 universities; one at Leyden, another at Groningen, and a third at Utrecht. There are several athenæums or gymnasiums, and many high schools. There are elementary schools in all towns and villages, and there are in many places mechanic institutions.

26. *State of the Arts, Sciences, and Literature.* Painting, only, has been cultivated with great success; and the *Dutch School* is distinguished by the most faithful and exact imitation of nature. The greatest painters are Rembrandt, Wouvermann, Gerhard Douw, Ruisdael, Mieris, Ostade, &c. Erasmus was the great restorer of literature in the West, and Grotius is a great name in jurisprudence, theology, history, &c. The Dutch, however, have little literature, though they have done much for the sciences. Many of their most popular books, are imitations of English, French, or German authors.

27. *Religion.* This is Protestant, and in the Calvinistic form. The church government is somewhat similar to that of Scotland. There are many Walloon churches, belonging to Flemish Protestants, who have a Synod of their own. There are, besides, Lutherans, Baptists, Jews, Quakers, Arminians, and Greeks. The Sabbath is observed in many places, nearly as strictly as in New England.

28. *Government.* The government is a constitutional monarchy; the crown is hereditary in the house of Nassau Orange. The two legislative chambers are styled the States-General; the upper house is composed of members nominated by the king for life, like the Chamber of Peers in France, and the lower house consists of deputies chosen by the provincial estates, or local assemblies of the 3 orders or estates of the realm; viz. the nobility, the citizens, and the landholders.

29. *Colonies.* The Dutch colonies, though less extensive than formerly, are still important, comprising a population of nearly 10,000,000. They are the Islands of *Curacao*, *Bon Ayr*, *Aruba*, *St. Eustitius*, *Saba*, and part of *St. Martin's*, with *Surinam*, in America; a number of forts and factories on the coast of the Gulf of Guinea, in Africa; and the islands of *Java*, *Celebes*, *Timor*, the *Moluccas*, &c., with settlements in Sumatra and Borneo. In these two islands, particularly the latter, the Dutch are constantly pushing their conquests, so as to bring more and more of the native inhabitants under their rule. In Java they have given, of late years, a great extension to agriculture, particularly in the production of sugar and coffee.

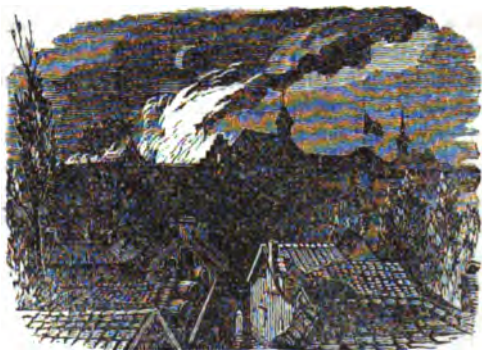
30. *Population, &c.* The population of Holland in 1848, was 3,236,741. Public revenue and expenditure about \$28,000,000 annually. The Public debt is upwards of \$400,000,000.

The army hitherto kept up amounts to upwards of 40,000 men in time of peace; 70,000 men in time of war. Besides the soldiers of the regular army there is a militia known as *Schutters*, formed by an enrollment in all places the population of which amounts to 2,500. The *Schuttery* may be termed the Dutch National Guard, and the call of these troops gives the king of Holland 29 battalions, or 40,000 men. They are called at the pleasure of the king only, but the *Landsturm*, which is a levy *en masse*, can be made under no consideration but by consent of the Chambers.

The Dutch navy is powerful, consisting of 29 frigates and ships of the line, 30 corvettes and brigs, and about 80 small vessels, for the defence of the interior waters.

31. *History.* A portion of this country was occupied, a century before the Christian era, by a barbarous tribe called Batavi, who gave the name of Batavia to their territory. They fell under the Roman power; and their country was united to Germany in the 9th century. In the 15th century, the 17 provinces of the Netherlands, or, as the name signifies, the Low Countries, belonged to the dukes of Burgundy, but passed by marriage into the hands of the Spanish branch of the House of Austria. The attempt of Philip the Second, king of Spain, to crush the Protestant religion in the Low Countries, gave rise to a revolt of those provinces, and, after a long and heroic struggle, the 7 northern provinces achieved their independence. In 1581 they renounced their allegiance to Philip, and formed the republic of the United Provinces of the Netherlands, often simply called Holland, from the name of the most extensive and powerful province. The war of independence was continued, however, with interruptions, until the peace of Westphalia, in 1648. With liberty came industry, foreign commerce, wealth, and power, and during the 17th century, Holland was one of the first European States. After the French revolution, the Netherlands were conquered by France, and, in 1810, incorporated with the French empire. On the fall of Napoleon, in 1815, the Belgic and Dutch Netherlands were united together as an independent kingdom, under the Dutch stadtholder, but in 1830, the former provinces revolted, and now form the kingdom of Belgium.

CHAPTER XLVIII. BELGIUM.



Antwerp.

1. *Boundaries and Extent.* This kingdom is bounded north by Holland, east by Germany, southwest by France, and northwest by the German Ocean. It extends from $49^{\circ} 40'$ to $51^{\circ} 30'$ N. lat., and from $2^{\circ} 40'$ to 6° E. long., and comprises 12,570 square miles.

2. *Rivers.* The chief rivers are the *Scheldt* and *Maese*. The Scheldt rises in France, and flows northeasterly into this country, where it turns to the north and northwest, and, dividing into several channels, falls into the German Ocean. Though not remarkable for length, it is a wide and deep river. Antwerp and Ghent are situated upon it. The *Maese*, or *Meuse*, flows through the eastern part of the country from France to Holland.

3. *Forests.* There are many large forests in the districts of Namur and Liege, and along the French frontier, being the remains of the celebrated forest of *Arduenna* or *Ardennes*. In Brabant is the forest of *Soignies*. They consist mostly of beech, birch, elm, and oak, and are used principally for fuel. Most of the trees fit for timber have been cut down.

4. *Climate, Soil, &c.* The climate much resembles that of the south of England. In the interior the air is salubrious; but upon the coast of Flanders, and about the mouths of the Scheldt, the air is moist and unhealthy. The soil, in general, resembles that of Holland. In Liege and Namur are considerable stony and unproductive tracts. Flanders abounds with excellent corn lands. In the south and southeastern parts are mines of iron, lead, copper, and coal, and quarries of marl. The whole country is low and level, but somewhat less so than Holland. In the south are some hills of moderate height.

5. Divisions. Belgium comprises 9 provinces.

South Brabant,
Hainault,
West Saxemburg.

Namur,
Liege,

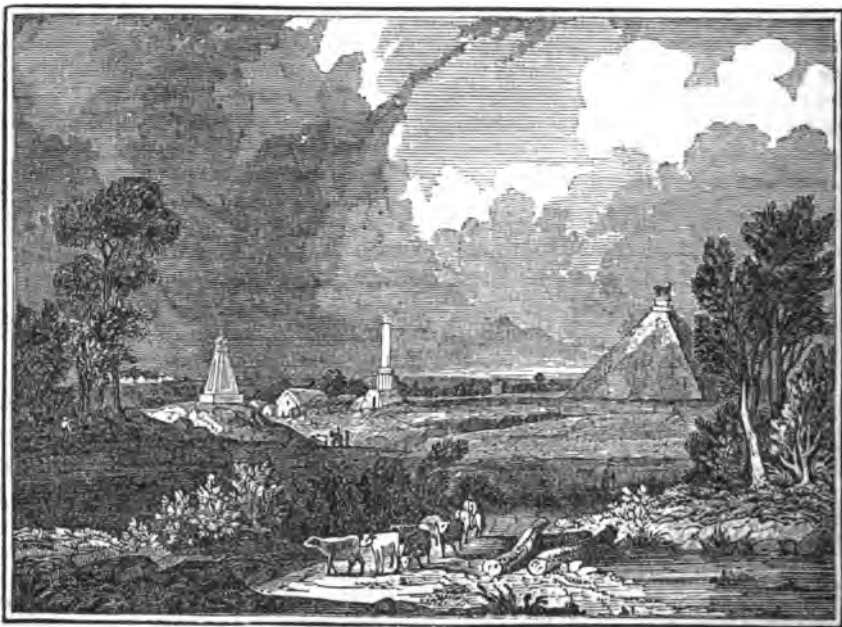
Limburg,
Antwerp,

East Flanders,
West Flanders,

6. Canals. The canals of Belgium are numerous, spacious, and commodious, though not equal in number to those of Holland, connecting all the great cities, and uniting every village. The Great North Canal extends across the country from Antwerp to Venloo on the Meuse, 120 miles. The Brussels Canal connects Brussels and Antwerp, 50 miles. The Ostend Canal, passing through Bruges, connects Ghent with the sea at Ostend, whence it is continued to Dunkirk. Brussels is also connected with Mons and Charleroi by canals.

7. Railroads. These works were projected by King Leopold, who adopted the enlightened policy of undertaking a great public work, for the encouragement of industry, the employment of labor, for strengthening, consolidating, and enriching the country, and to serve as a monument of his devotedness to the interest of the State. He ordered the whole country to be surveyed by able engineers, the necessary plans and estimates formed, and, on the 1st of May, 1834, a law was proclaimed, for the introduction of a system of railroads, through the whole kingdom, in different directions, to be executed at the expense of the state. These railroads lead to seaports at two points,—Antwerp and Ostend,—connect with France at two, and with Germany at one; and all unite in one centre. The road extending to the frontier of Germany, has been continued to Cologne on the Rhine, Antwerp thus becomes the post of the Rhenish provinces. The Belgian roads, thus far, have proved eminently successful.

8. Cities. *Brussels*, the capital, stands on both sides of the little river Senne, flowing into the Scheldt. It is partly situated on a rising ground, and makes a fine appearance at a distance. The city was formerly surrounded by a double wall and ditch, but these have been demolished, and the space formed into a handsome public walk planted with trees. The suburbs are extensive, and there are many neighboring villages joined to the city by long avenues. The lower part of the town consists of narrow streets and old houses. The upper part is modern and regular, with fine buildings and a beautiful park laid out in large, regular walks, shaded with trees and surrounded by palaces, public offices, and elegant private houses. Public fountains are interspersed throughout the city, and a large canal here leaves the river. The Hotel de



Battle Ground of Waterloo, with Monuments erected to the Memory of the Slain.

Ville is remarkable for its exquisite Gothic spire, which looks like the work of fairy hands. There are many fine squares and palaces, and in the Orange palace is a library of 100,000

volumes. Half a league from the city is the splendid palace of Schoonenburg. Brussels is distinguished for its manufactures of laces, carpets, tapestry woolen and cotton cloths, silk stockings, gold and silver lace, and earthen ware. Population 165,000. *Waterloo*, about 10 miles from Brussels, and on the borders of the Soignies Forest, is a small village, near which the fate of Europe was decided, in the year 1815, by the victory of the Allies over Napoleon.

Antwerp, on the Scheldt, is a large and well built-city, surrounded by a wall with carriage-roads on the top, planted with rows of trees. The city is built in the form of a semicircle and is intersected by canals. The cathedral is one of the finest Gothic structures in the world, and its spire is unrivalled; it is 441 feet high, and deserves, according to the sayings of Charles the Fifth, to be kept in a glass case and shown only on holydays. The stadt-house and exchange are noble edifices. The harbor is deep and capacious. In the height of its prosperity, Antwerp was one of the most flourishing and wealthy commercial cities in the world, and contained 200,000 inhabitants. Its commerce has greatly declined, and the city has a decayed and solitary appearance. Napoleon designed to make it a great naval station, and constructed here some of the noblest dockyards in the world. The inhabitants carry on a few manufactures. Population 80,000.

Ghent stands at the confluence of 3 rivers with the Scheldt, and is seven miles in compass, but contains within its walls many fields and unoccupied grounds. Many of its canals are bordered with quays planted with rows of trees. The houses are large, but heavy and inelegant; here is a fine Gothic cathedral with marble floors and pillars. Ghent has manufactures of fine lace, cotton, linen, woolen, silk, paper, and leather; the trade of the city has lately increased. Population, 90,000. Its citadel is one of the largest in Europe. The treaty of Peace between Great Britain and the United States was negotiated here, in 1815.

Bruges, eight miles from the sea, stands in a fertile plain, it communicates with the sea and the towns in the interior by canals. Here are a college, an academy for painting, sculpture, and architecture, several literary societies, a public library, and a botanical garden. The manufacture of lace employs 6,000 people; and there are 200 schools in which children are taught this art. The town-house is a superb public edifice; its steeple is furnished with chimes of bells, which play a different tune every quarter of an hour. Population 45,000. It was formerly one of the great commercial marts of the world, but is now much declined, yet its commerce, manufactures, and extensive ship-yards render it still important. *Ostend*, a few miles west of Bruges, is one of the most important seaports in the country; regular packets sail from this place to England several times a week, and it has a great trade in the exportation of grain and other products. Population 12,554.

Liege, on the Maese, is divided into three parts by the river and has extensive suburbs. The houses are high and many of the streets narrow, crooked, and gloomy. Most of the inhabitants are engaged in manufactures and trade. Iron, coal, and alum abound in the neighborhood, and afford occupation for all the industry of the place. The manufactures consist of iron, fire-arms, clock-work, nails, &c. Population 73,000. Liege contains a university and numerous institutions of education and learned societies.

Tournay, the principal manufacturing town in the kingdom, is a flourishing place with 33,000 inhabitants; carpets, camlets, and porcelain, are among the principal products of its industry. *Mons*, the capital of Hainault, is noted for the extensive coal mines in its neighborhood. Population 24,000.

Louvain, with 35,000 inhabitants, is an active manufacturing town, with a celebrated university. *Namur*, capital of the province of the same name, is rendered important by its manufactures of cutlery, leather, and earthenware, its extensive fortifications, and its population of 25,000 souls.

Malines or *Mechlin*, with 26,000 inhabitants, *Ypres*, 15,000, and *Courtray*, with 16,000, are among the other most considerable towns. The portion of Limburg assigned to Belgium, has no towns of importance.

9. *Agriculture*. The agriculture of the Belgic provinces forms the principal source of their wealth. The whole territory of Flanders is cultivated like a garden. A great proportion consisted originally of barsh, barren sands, producing nothing but heath and fir; yet by the application of manure, these have been brought into a state of high fertility. The culture of artificial grasses is the characteristic process of Flemish husbandry, which it has taught to the rest of Europe. In general, the Flemish agriculture is conducted on a careful, economical, antique

practice, many of the modern improvements not having been adopted. But this system of husbandry, after supplying the most dense population of Europe, with the standard productions of the soil, yields several articles, such as madder, rape, clover, mustard seeds, hops, &c, for exportation.



Mustard.



Madder



Foxtail Grass.



Fiorin Grass.



Spike Fescue Grass.



Cat's-Tail Grass.

10. *Commerce and Manufactures.* In the 14th century the Flemish were one of the most commercial and manufacturing people of Europe. Bruges, and, afterwards, Antwerp, were the centres of an extensive commerce, which finally passed mostly into the hands of the Dutch. Manufacturing industry is the branch in which the Belgic provinces formerly most excelled and in which their decay is most conspicuous. Three centuries ago the linens and woollens of Ghent, Louvain, Brussels, and Mechlin, clothed the higher ranks in all the surrounding countries. Since that time, the fabrics of France and England have attained such a superiority, and are at once so cheap and so well suited to the taste of the age, that the Low Countries' manufactures cannot sustain a competition. There are still, however, some fine linen fabrics, laces, lawns, and cambrics, in which they continue unrivaled. The linens of Flanders, the lace of Brussels and Mechlin, the woollens of Verviers and Mechlin, the smoking-pipes of Gonda, and the cutlery and hardware of Namur and Liège, are among the products of Belgian industry.

11. *Inhabitants.* The Belgians are in part Flemings, of German origin, and in part Walloons, of the Latin race, and closely allied to the French. The former resemble the Dutch

in their character and manners, the latter are more like the French. The language of the higher classes is French; of the lower classes, Flemish, a dialect of the Low German, or the Walloon dialects, a sort of rustic French.

The modes of dress, manner of building, manners and customs, food and drink, generally



Woman of Brabant.



Man of Brabant.



Coal Girl of Brabant.

present little that is peculiar, but rather exhibit the same mixture of French and Dutch. A black-hooded cloak is worn by the women in many places, a remnant of the old Spanish way over these provinces. The common people generally wear wooden shoes, as in many other parts of Europe. Some of the Belgian towns are hardly to be rivaled anywhere else for the neatness and general pleasing effect of the buildings. As to the character of the Belgians, it may be observed, that, long subject to a foreign yoke, and in constant intercourse with foreigners, they seem to have lost, in a great measure, the original Flemish character, and to present no very distinctive features. A strong national antipathy existed between the Dutch and Belgians while they were under the same crown, and the latter attempted to adopt the French customs and manners, yet they have a greater resemblance to their northern than to their southern neighbors. The amusements are much like those of Holland; the great Flemish *kermes* or fairs, though no longer subservient to commerce, exist still as festivals, at which there is a great display of humor and character, such as we find happily illustrated in the works of the Flemish painters.

12. *State of the Arts, &c.* The fine arts were cultivated with great zeal and success in the Belgic provinces, during the days of their opulence and prosperity. Wealthy merchants liberally patronized the arts of design; and the gentry and landholders being induced by the constant wars, of which the Low Countries were the theatre, to live much in towns, acquired more refined tastes, than could have been formed in a country life. Antwerp, during its prosperous period, became, in some measure, a Belgic Athens. The Flemish school of painting, under its great masters Rubens and Vandyke, displayed great splendor of coloring, grandeur of composition, and force of expression, although it never reached that grandeur of design and pure taste, which were formed in Italy.

13. *Religion and Education.* The Belgians are mostly Catholics, the number of Protestants not exceeding 10,000. The Catholic clergy have shown a very intolerant spirit here, but the great possessions of the church have been forfeited, and the monasteries have been suppressed, only a few nunneries having been allowed to exist. The clergy now receive very moderate salaries from government; they consist of an Archbishop of Mechlin, 5 bishops, 64 vicars-general and canons, and 4,530 inferior officers. There are 4 universities, and the provision for general education is extensive.

14. *Government.* The form of government is monarchical, and the power of the king is limited by the constitution. There are 2 legislative chambers, both elected by the citizens pay.

ing a certain tax ; the Senate is chosen for the term of 8, and the House of Representatives for 4 years. The population of Belgium is 4,500,000.

15. *History.* The history of Belgium is connected with that of Holland till the revolt of the latter country from the Spanish dominion. Belgium or the Low Countries remained in the possession of the Spaniards after the independence of Holland. Early in the 18th century the country passed into the hands of the Austrians, and was held by them till the breaking out of the French revolution, when it was conquered by the French, and incorporated with France in 1795. After the overthrow of Napoleon, it was united to Holland, and formed a part of the kingdom of the Netherlands. This union was the work of the Congress of Vienna, and never obtained the cordial acquiescence of the Belgians. The two nations differed in character, manners, institutions, religion, and language, and the policy of William of Orange, who occupied the throne, was far from conciliatory. The Belgians were treated more as a conquered people than as subjects on an equality with the Dutch ; few of them were appointed to important offices ; the education of their children was taken out of their hands ; their language was proscribed ; the liberty of the press was abolished, and many other burdens imposed upon them. The revolution of Paris in 1830 set them the example of revolt, and in August of the same year they rose in insurrection at Brussels, and on the 4th of October, 1830, declared the independence of Belgium. Bloody combats with the Dutch armies followed at Brussels, Antwerp, and other places. The troops of the king were at length driven from the country, and the independence of Belgium was acknowledged by the 5 great European powers. On the 4th of June, 1831, the Belgian Congress made choice of Prince Leopold of Saxe-Coburg for king, who immediately accepted the crown, and took his oath to the Constitution, at Brussels, July 21st, 1831.

CHAPTER XLIX. DENMARK.

1. *Boundaries and Extent.* Denmark is a peninsula, divided on the north from Norway by the Scagerac, and from Sweden on the east by the Sound ; it is bounded on the south by Germany and the Baltic ; and the German sea divides it from Great Britain on the west. Including the insular portion, it lies between $53^{\circ} 21'$ and $57^{\circ} 42'$ north latitude, and 8° and $13^{\circ} 30'$ east longitude. Its length from north to south is nearly 300 miles, and its breadth 100. Area, 22,000 square miles.

2. *Rivers.* The most considerable river is the *Eyder*, which, rising near the Baltic, runs westward, and after a course of 56 miles, falls into the German sea at Tonnigen. The *Gudensal* has its source between Skanderborg and Randers, and enters the Baltic at Radbye. The other rivers, or more properly, rivulets, are numerous ; but too inconsiderable to require mention.

3. *Lakes.* There are several lakes, but none of any magnitude. That of *Ploen*, in Holstein, is one of the largest, and does not exceed 10 miles in circumference. Among the others are those of *Arre*, *Esrom*, and *Sial*, in Zealand ; the lake of *Wyborg* and the *Long Lake* in Jutland ; and the lake of *Ratzeburg* in Lauenburg.

4. *Islands.* The islands in the Baltic are the most fertile and populous parts of the kingdom, and of these Zealand is the largest. It is generally flat, and except in a small part of the coast very little elevated above the level of the sea. It contains 2,700 square miles. Population 48,000. Funen, the next in importance, is separated from Zealand by the strait, called the Great Belt, and is about 50 miles long and 40 broad. The population is 154,000. The island of Bornholm is surrounded by rocks highly dangerous to navigators, and contains seven towns and twenty-one parishes. The capital is Roenne, known for its potteries and watch and clock making. Population of the island 25,000. The little isle of Moen, at the southern extremity of Zealand, contains 12,000 inhabitants. The island of Langeland, between Funen and Laaland, contains 16,000 inhabitants. Laaland, or Lolland, is peopled by 50,000, and has a considerable trade in grain. The isle of Falster, to the east of Laaland, numbers 21,000 inhabitants. Samsøe has 6,000, Tåsinge, 4,000, Alsø, 22,000, Ærø and Færø, 2,000 each.

5. *Bays, Straits, &c.* The coasts of Denmark are indented by numerous branches of the sea, called *fiords*, or *firths*, the principal of which is called *Lymfjord*. The *Sound*, or *Oresund*, one of the three straits which connect the Cattegat and Baltic, is the most frequented strait in the world. Its depth is from ten to nineteen fathoms ; but close upon the coast, and round some of the islands, it is only four fathoms.

6. *Climate.* The geographical situation of Denmark indicates severity of climate; but the vicinity of the sea renders the air more humid and temperate than in the interior of the continent in the same latitude. The sky is often obscured by fogs, and rain falls at least on one third of the whole number of days in the year. The summer is often oppressively warm, it begins in June, and ends with September.

7. *Soil.* The prevailing soil is sandy. In some parts it consists of a very rich mould, of which the component substances are marl, and a bituminous matter. The soil in the island of Als is chiefly composed of a very rich vegetable mould. Marshes are found everywhere. The whole of Vendsyssel is one continuous marsh. Some fuller's earth, alum, and vitriol, found in Jutland, and porcelain clay obtained in the island of Bornholm, seem to constitute the whole of the mineral productions of Denmark.

8. *Animals.* Deer, foxes, and hares are numerous, and hunting is a common amusement. Sea-fowl abound in the marshy districts. The horses of Denmark and Holstein are celebrated for their strength, beauty, and speed.

9. *Face of the Country.* The general surface of Denmark is level, with slight undulations. The coasts are in some parts steep, and bold; but usually low and sandy. Towards the west, where the Jutland peninsula terminates, the aspect of the country is exceedingly barren and desolate.

10. *Divisions.* Denmark is divided into 3 parts, the first comprehending the kingdom of Denmark Proper; the second the 3 duchies of Sleswick, Holstein, and Lauenburg, which belong to the German confederation; and the third embracing the Feroe Islands, and Iceland, which are considered as foreign colonies. The kingdom of Denmark consists of the peninsula of Jutland, and the islands contiguous.

11. *Canals.* By the canal of Kiel, a communication is maintained between the German Ocean and the Baltic. The canal of Steckenitz, unites the Elbe with the Baltic. The canal of Odensee unites Odensee with the sea.

12. *Towns.* *Copenhagen*, called by the Danes *Kiøbenhavn*, the metropolis of the Danish dominions, is situated on a low and marshy promontory on the east side of the island of Zealand. Its harbor is excellent, and its quays and dock-yards extensive. The regularity of its streets, the beauty of its squares, and the great number of its elegant buildings, render Copenhagen one of the handsomest cities in Europe. The royal castle of Christiansborg is a magnificent palace with a rich gallery of paintings, and a fine library of 400,000 volumes. There are 3 other royal palaces, and many fine palaces of the nobility. The halls of the university, the town-house, and numerous other public edifices are distinguished for the beauty of their architecture. Among the churches are that of Our Lady, adorned with some pieces of statuary by Thorwaldsen, and that of the Trinity, the round tower of which, used as an observatory, can be ascended by a winding path in carriages. No city of its size surpasses Copenhagen in the number and excellence of its learned societies, its scientific establishments, and its institutions for education. The university has a good library of 100,000 volumes, and enjoys a high reputation. Copenhagen is the centre of an active commerce and of flourishing manufactures, and it contains a population of 125,000. Its vast docks and its massive and extensive fortifications, are worthy of notice.

Sleswick, the capital of the duchy of that name, is a long, irregular, but handsome town,

with 12,000 inhabitants. *Altona*, on the Elbe, about 2 miles from Hamburg, is a place of considerable trade, and extensive manufactures. Population, 32,000. *Elsinore*, or *Elsineur*, at the narrowest part of the Sound, is protected by the strong fortress of Cronborg, and contains about 30 commercial houses. It has an excellent roadstead, in which ships anchor almost close to the town. At this place the tolls of the Sound are collected. Population, 7,000. *Kiel*, the capital of Holstein, is a fortified town on a bay of the Baltic, and is the seat of a celebrated university. Population, 13,500.

Gluckstadt, near the mouth of the Elbe,



Castle of Cronborg at Elsinore.

has some trade, and is engaged in the Greenland fishery. Population, 5,300. *Flensberg*, in the duchy of Sleswick, has a good harbor, and is a place of some commerce. Population, 26,000. *Roeskilde*, at the extremity of the Roeskilde fiord, has a very ancient cathedral, and is the burial-place of the Danish kings.

13. *Agriculture.* Denmark produces barley, rye, and oats, in abundance; also rape-seed, wheat, oats, buck-wheat, and peas. A great quantity of excellent butter is manufactured. The rearing of cattle is also an extensive branch of industry, and the rich meadows of Sleswick furnish what is known and celebrated under the name of Hamburg beef. Over all Denmark the dairy forms the basis of a large export trade, and butter, cheese, salted meat, and live stock, with the different grains, make the bulk of the exports. All kinds of domestic poultry are plentiful, particularly geese and ducks, the feathers of which are a valuable article of exportation.

14. *Commerce.* This country is well situated for commerce. The principal imports are cotton, tea, wine, brandy, and salt. The exports are timber, black cattle, horses, stock-fish, tallow, hides, tar, pitch, and iron, with some produce.

15. *Manufactures.* There are a few hands employed in the manufacture of woollen stuffs. Carpets, stockings, gloves, camlets, and lace, are also made to some extent. Sugar refineries are common, and the produce is equivalent to the consumption.

16. *Fisheries.* The most considerable fishery is that of harrings in the Lymfiord. Seals and porpoises are killed upon the coast and in the Eider.

17. *Revenue and Population.* The annual revenue of Denmark is 8,000,000 dollars. It arises principally from the royal demesnes, tithes, land tax, poll tax, a tax upon titles, places, and pensions, stamp duties, customs, and a toll on vessels passing the Sound. The public debt is 60,000,000 dollars. The population of the Danish dominions is 2,250,000, beside 180,000 in the colonies.

18. *Army and Navy.* The present military force of Denmark consists of 24,819 men. The Danish navy amounts to 7 ships of the line, 8 frigates, 5 sloops of 20 guns, 5 brigs, 2 schooners, 82 gunboats, and 4 steamboats. The Danes are expert seamen.

19. *Colonies.* The *Faroe Islands* lie between Iceland and the Shetland isles. They consist of 25 islands, 17 of which are inhabited, the rest being mere rocks. Their superficial extent has been estimated at 1,100 square miles; and the number of inhabitants at 9,800. The whole of these islands are composed of basaltic rocks; and some of the mountains rise to the height of 3,000 feet above the level of the sea. In Osteroe is a range of basaltic pillars, almost as regularly defined as those of Staffa. The principal minerals are copper, jasper, and coal. The climate is rigorous. Trees are unknown, and the only fruit is wild berries. Cows of a small breed, and sheep form the principal wealth of the inhabitants. The islanders are supported chiefly by bird-catching and fishing; the seal fishery in the month of September being often very productive. They manufacture a few jackets, and upwards of 112,000 pairs of stockings annually, which they exchange with the Danes for grain, timber, nails, coffee, salt, and other necessaries. The *Faroe Islands* were discovered and colonized by fugitive Normans, between the years 858 and 868. During the American war they became notorious for smuggling, and continued so for some time. The language is a Danish dialect of the Norse. The inhabitants are a laborious and simple race of men, and their ordinary food is barley, milk, fish, &c.

The other colonies of Denmark, besides Iceland, are the Nicobar Islands in Asia. Tranquebar and Serampore, in India, were sold to the British in 1845. There are also the forts of Christiansborg, Friedensborg, Konigstein, and Prinzenstein in Africa; the settlements of Greenland in North America; and the islands of St. Thomas, St. Croix, and St. John in the West Indies.

20. *Inhabitants.* The Danes, like most northern nations, are fair in complexion, of middle stature, and hardy in constitution. The women have blue eyes and auburn hair, and many of them are beautiful. There is a nobility, which though reduced from its ancient splendor, contains many who live in elegance if not in ostentation. There are two orders of knighthood. The peasantry, poor and oppressed, has been but recently emancipated from personal bondage, and is still subjected to



Danes.

many vexatious and burdensome feudal usages, but they are beginning to raise their heads. The Germans occupy Holstein, Lubeck, and the most of Sleswick, and there are a few Gypsies. The women of the middle classes are very fond of show in their dress, which is composed of many colors, red being the most prevalent. In summer, many of the people retain their great-coats, and in winter they assume furs. The French fashions are common in the cities. The Danish language is a dialect of the Gothic, or old German. The Frisish is used in some of the islands, and the German in Holstein, Lubec, and a part of Sleswick. The houses in the cities are generally of brick; in the country, they are of wood, with piazzas; few of them have much pretension to elegance. The general food of the lower class is oat-cake, rye-bread, potatoes, fish, and cheese. Much beer and spirits, chiefly brandy, are consumed, and the use of tobacco is general, but less so than in Germany.

The mode of traveling is less convenient than in Germany, and few foreigners visit Denmark. The common post vehicles do not exceed 4 or 5 miles an hour. The Danes are brave, but not adventurous. They would do more for defence than for glory. They are less cordial than the Germans, and less cheerful than their northern neighbors. They are faithful and honest, but not strongly marked with national peculiarities. They are addicted to the use of spirituous liquors, and the proverbial expression of a "drunken Dane," has some foundation in the national character.

The Danes are much less cheerful than either the Swedes or the Norwegians. Cards and dancing are the most common amusements, but these are not followed with much spirit.

21. *Education.* There is a university at Copenhagen, and another at Kiel. There are many gymnasiums, and every town has a primary school; 2,302 of these schools are on the Lancasterian plan. The nobility are educated at Sclerå. There is a school at Copenhagen for the instruction of teachers, and there are several learned societies. The largest library has 410,000 volumes, of which 30,000 are of a date prior to 1500. There are 80 periodical publications in Denmark, 70 of which are in Danish.

22. *State of the Arts, Sciences, and Literature.* The arts are not in a flourishing state, though Thorwaldsen, the sculptor, was by birth a Dane. The ancient literature is the Scandinavian, which will be mentioned under another head. In the 12th century, Saxo Grammaticus wrote his Danish history. Holberg and Pontoppidan were Danes, and Malte Brun was born in Denmark. The sciences are cultivated with success, but the literature is limited. There are some popular songs, and good dramas.

23. *Religion.* The religion is chiefly Lutheran, and the church government partakes of the English hierarchy, and of the Calvinistic discipline. Few of the clergy have livings of more than \$1800, or less than \$250 a year. In Jutland, however, some have but \$130. There are a few nunneries.

24. *Government and Laws.* The government is an hereditary and unlimited monarchy. But though the king has power to make, interpret, and abrogate the laws, there is much practical freedom. The laws are equitable, and justly administered. The police is strict.

25. *History.* Denmark, Norway, and Sweden, were anciently called *Scandinavia*. A century before the Christian era, the inhabitants of the peninsula of Jutland were known to the Romans by the name of the Cimbri. The Gothic conquerors gave this country a new set of rulers. In the Middle Ages, these people, with the Swedes and Norwegians, were called *Normans*, or *Northmen*. They conquered Normandy in France, peopled the Faroe Islands, the Orkneys, Shetland, and Iceland, and carried their arms into the south of Europe. Canute, king of Denmark, conquered in the 11th century, the whole of Norway, and nearly all England and Scotland. Under this prince, Christianity was introduced; and the progress of civilization begun. But the most brilliant era was the reign of Margaret, surnamed the Northern Semiramis, who effected the union of Calmar, which placed on her head the crown of Denmark, Norway, and Sweden, in the 14th century. Sweden, however, shook off the Danish yoke in the 16th century, but Norway was retained until 1815, when it was ceded to Sweden, under the dictation of the allied armies.

CHAPTER L. ICELAND.

1. *Situation and Extent.* Iceland is situated on the verge of the polar circle, between 63° 24' and 66° 30' N. latitude, and between 13° 15' and 24° 40' W. longitude. Its length is 300 and its breadth nearly 150 miles, and it has a superficial area of 30,500 square miles.

2. Mountains. This island is celebrated for its volcanoes, and its mountains of ice. *Mount*



Hecla, a volcanic mountain in Iceland.

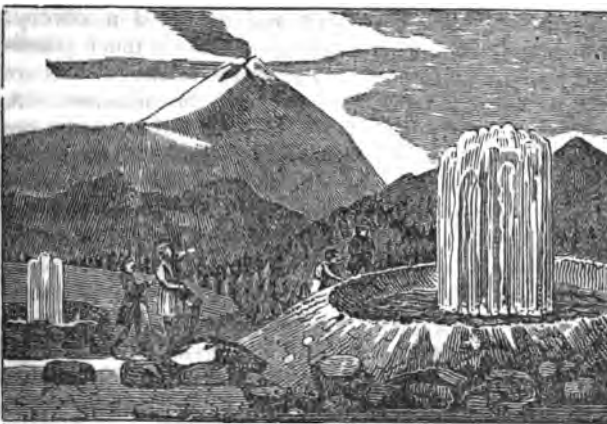
Hecla is in the southern part, a few miles distant, from the coast, and is about 5,000 feet in height. It is neither the most elevated nor the most picturesque of the Icelandic mountains, but its situation renders it conspicuous, and it has become famous by its repeated and tremendous eruptions. The earliest eruption on record was in 1004, since which there have been about 20. More than 60 years have elapsed since the last. The summit of *Hecla* is divided into 3 peaks, the middle of which is the highest. The craters form vast hollows on the sides of these peaks. The mountain itself consists for the most part of sand and slags; the lava being confined to the lower regions, and forming an immensely rugged and vitrified wall around its base. The most dreadful volcanic eruption known in Iceland was from *Skaptar Yokul*, an ice mountain,

near the sources of several rivers, and composed of about 20 red, conical hills. It took place in 1783, and caused great devastations. *Oræfa Yokul*, the highest mountain in Iceland, is supposed to be an elevation of 6,240 feet. The *Sulphur Mountain* has been described as a "natural cauldron of black, boiling mud;" the sulphur exhales from it in great profusion.

3. Climate. The cold is not more intense in Iceland than in the most favored parts of Denmark, and the thermometer seldom or never sinks to zero. What affects the temperature most is the arrival of floating ice from Greenland. This comes in immense masses, often so large as to run aground in 80 fathoms. When it remains for a long time on the coast, the winter snows are longer in melting, the frost remains in the ground, vegetation is checked, and the summer is very short.

4. Geology, &c. Iceland is a chain of immense rocks, in the structure of which trap and basalt predominate. Their summits are crowned with snow, though everlasting fires burn in their subterranean caverns. Tracts of lava traverse the island in every direction. The general appearance of the country is the most rugged and dreary imaginable. On every side are the yawning craters of active or extinguished volcanoes, the sources of the surrounding desolation. In many places the basalt takes the form of immense masses of pillars, like the well-known Giant's Causeway in Ireland.

The hot springs of this island are very remarkable, and are quite numerous. The most



Great Geyser.

celebrated is the *Great Geyser*, in the neighborhood of Mount *Hecla*. The water boils with a loud, rumbling noise, in a well of an irregular form, about 10 feet in diameter, widening near the top, and opening into a basin 56 feet by 46. Its explosions are announced by sounds resembling the low report of artillery. The first jets which are thrown up, seldom exceed 15 or 20 feet, but the highest often exceed 80. On the propulsion of the jet, the great body of the column rises perpendicularly, and then divides into beautiful curved ramifications, which are projected in every direction. The explosions of the *Great Geyser* take place at intervals

of about 6 hours. There are many other inferior springs of boiling water, and several of boiling mud.

At *Surtshellir* is a long cavern, 40 feet high, 50 broad, and 5,034 in length. The entrance is through several chasms in the roof. It was evidently formed by volcanic agency, and is sup

posed by the natives to have been formerly the residence of the king of the regions of fire. One of the minor caves is beautifully coated with pure ice in every form of crystalization.

5. *Natural Productions.* Among the vegetables is a species of wild wheat, which may be made into good flour. Besides the lichens, there are many anti-scorbutic roots, and several marine plants, which are used as food. Wild berries of an excellent flavor are found in abundance. Of late years, gardening has been practised throughout the country, but with little success. There are no better trees than birch and brushwood. Immense quantities of pine, firs, and other trees, however, are thrown upon the northern coasts.

6. *Minerals.* A very singular mineral production of this island is a kind of fossil wood, black, heavy, and slightly carbonized, burning with flame. There is another kind of mineral wood, heavier than coal, which burns without flame, and contains chalcedony in its transverse fissures. Of the ordinary lava, there are several different formations. The central mountains contain copper and iron; which are not wrought for want of fuel; also marble, lime, plaster, porcelain clay, several kinds of bole, onyx, agate, jasper, and an abundance of sulphur.

7. *Towns, Population, &c.* The capital is *Reykjavik*; it is a seaport with some trade. The other considerable towns are *Holm* and *Husarik*. The chief agricultural product is hay. Most of the inhabitants are employed in fishing. The trade consists in the exportation of fish, oil, skins, feathers, and sulphur. The population is about 70,000.

8. *Inhabitants.* The Icelanders are rather tall, of a frank, open countenance, florid complexion, and yellow, flaxen hair. The women are short in proportion to the men, and inclined to corpulency.

9. *Dress.* The common dress of the men is a linen shirt, a short jacket, and wide breeches reaching above the jacket. The men wear three-cornered hats. The most curious part of the female dress is the turban, of white linen, stiffened with a



Icelanders.

great many pins, and about 20 inches in height. It is fastened to the head by a dark-silk handkerchief, that is tied several times around it, and completely hides the hair. This has for ages been the national dress.

10. *Language.* This is the Icelandic, an original language, or the Scandinavian, the stock of several languages in the north of Europe.

11. *Manner of Building.* The houses in Iceland are all constructed in the same manner. The walls are thick, and composed of alternate layers of earth and of stone. The rafters are a few beams of drift-wood, or of whalebones interlaced with twigs, and covered with turf. This kind of roof always bears good grass, which is cut with the scythe. There is generally a dark alley running through the middle of the house, and on either side of this are the entrances to the various apartments, as the kitchen, the stranger's room, the sleeping room, &c. The stranger's room is always the best in the house. The light is admitted from the roof through windows of glass, or of the membranes of sheep. There is no chimney in the kitchen, and the smoke escapes through a hole in the roof. The Icelanders never have fire even in winter, but for cooking. The beds are arranged on each side the sleeping room. They are very narrow, yet the people sleep by couples, lying head to foot. The floor is commonly the damp earth.* This manner of life causes pulmonary diseases, which carry off many people, and few attain to old age.

12. *Food.* The ordinary diet is of the simplest kind. The breakfast is of sour curds, mixed sometimes with sweet milk and flavored with berries. The dinner is of dried fish and butter. The latter, when rancid, is most esteemed, and bears double the price of fresh and new. The supper is like the breakfast, or it is sometimes a kind of porridge; and this is to a foreigner the most palatable of all the Icelandic diet. On great occasions, the people have boiled mutton and rye porridge. Beef is seldom eaten, and there is no bread except a little of the sour, Danish biscuit. The usual beverage is whey mixed with water.

13. *Diseases.* The most common maladies are obstinate coughs, or consumptions; and the want of personal neatness engenders cutaneous diseases. Many children die before the 10th year, and about a twenty-fifth of the deaths are from accidents, generally drowning.

14. *Mode of Traveling.* No other civilized country offers so many obstacles to the trav-

eler as Iceland. There are no coasting vessels to take him from one place to another along the shore, and there are no vehicles, and scarcely any roads in the interior. The only way of traveling is on horseback, and in general the horse is purchased, not hired. There is, however, a truly hospitable custom and feeling, that leads the inhabitants to exchange with the traveler, without a shilling for boot, a good and fresh horse, for one lean and jaded with a long journey. The horses are seldom housed or fed, even in winter, but subsist chiefly on the sea-weeds thrown up by the tide. They are of a stout race, and are broken to an amble, an easy gait for an equestrian. As there are no inns, and little desirable shelter in the small and crowded dwellings, the traveler usually carries a tent, and the nature of the road imposes an equal necessity for a guide; while the fogs or storms of snow, make it necessary, that he should also be provided with a compass. He must ford rivers if the ice be too weak to bear him, and if not provided with shelter, he must sometimes seek it in caverns, or build a house of snow. In winter it is impossible to travel at all, and even in summer, when there is no obstruction from ice and snow, there is enough of difficulty and danger, in crossing rivers, climbing mountains, passing morasses, and picking a way over the burning and smoking ground, rent by earthquakes into chasms.

Towards the end of June, the Icelanders make a journey to the coast, to sell their productions to the factories, and bring back other commodities in exchange, for the traffic is carried on rather by exchange, than money, — though the absence of money has produced a sort of substitute in fish and wadmal (a coarse cloth). Of fish, there were in the time of Von Troil, 48 to the rix dollar. This transportation of goods to the coast and back, leads the people, for mutual assistance, to travel in caravans, and sometimes 70 horses are seen together, going down to the coast, and often at the factories there are 300 horses and half as many tents.

15. *Manners and Customs.* It is only on the confines of the polar circle, that we must look for society in a state of primitive simplicity, and with a diffusion of a great degree of knowledge, though without the answering grade of refinement. The remote insular situation of Iceland, and its poverty, which one of its pastors called the “bulwark of its happiness,” is a fortunate barrier to the visits of foreigners, who might, indeed, introduce to those secluded regions more knowledge of the world, coupled with a greater familiarity with its vices. The early settlers of Iceland, like those of New England, were a race well fitted to leave a high state of moral feeling and intelligence to their descendants. Many of them were distinguished men of Norway, who preferred exile to oppression at home, and who carried to their adopted country the germ of republican institutions, and of the knowledge that can the best uphold them.

The most prominent traits in the Icelanders are a love of their country, hospitality, intelligence, simplicity, and piety. Though social, they are rather disposed to be serious. They have little conception of humor, and are seldom known to laugh. Yet they may be called an eminently happy people, and seldom leave their own country; the few who go to Copenhagen are never satisfied till they return to Iceland. It would almost seem that happiness, and simplicity of character, had deserted the sunny skies and fertile fields of southern Europe, to nestle among the icy crags and volcanic ruins of the frozen zone. In Iceland a stranger is at once struck with the oriental manner of salutation, borrowed probably from the Scriptures, with which all are familiar, though until lately but few copies were possessed. The common salutation on meeting is that of the East, “Peace be with you,” to which the reply is, “The Lord bless you.” On knocking at a door to gain admittance it is common to say, “The Lord be in this place,” to which the reply is similar to the last. •

It is the universal custom to give thanks with clasped hands before and after a meal; when the meal is over, the guests kiss both the master and the mistress, thanking them for their kindness. At meeting and parting, the kiss is the universal salutation; on entering a family the visitor must thus salute them all, according to seniority or station, beginning with the highest; at his departure he reverses this, and the lowest is taken leave of first. Before and after crossing a river the Icelander raises his hat and makes a mental prayer, and also when he goes in a boat from the shore. This religious sentiment is the leading trait in the Icelandic character. Of their characteristic faith, Doctor Henderson gives this example. “I could not but notice,” said he, “the manner in which my hostess spoke of her children: on my inquiring how many she had, her reply was, I have 4; 2 of them are here with us, and the other 2 are with God. It is the best with those that are with him, and my chief concern about those that remain is, that they may reach heaven in safety.”

16. Amusements. The amusements of the Icelanders are of a grave character, founded less on levity than the intelligence that is so much diffused among them, and though they have chess, and cards, they generally prefer to pass their evenings in recounting some legend of their ancestors, or reading by turns the history of their own country, or some other useful book. As books are scarce in Iceland, copies are multiplied in manuscript, and many of them are so well executed as to be beautiful specimens of the art.

17. Education. There is no other country in which so great an amount of knowledge is universally diffused as in Iceland; and yet there is on the island but 1 school, and that is designed chiefly for such as are to fill offices in church and state. The education is strictly domestic, and no one acquires any that he does not get at home. The extent to which it is carried is scarcely credible. It is not uncommon to hear a youth quote a Greek or Latin author, and in almost every hut there is some person capable of conversing well upon subjects, far above the understanding of those of the same grade in other countries. The Icelanders are not only familiar with their own history and literature, but they are in a great degree conversant with those of other nations. It is surprising to hear these self-taught people conversing on subjects that belong to a professor's chair. Among other instances of this wonderful diffusion of education, Doctor Henderson relates, that he was reading to a common person a letter addressed by the King of Persia to the English Envoy, concerning a version of the New Testament. The date was 1229, and a little boy remarked, that it must be a very old letter. "No," said the peasant, "it was not written according to our computation, but it was dated from the *Hegira*."

18. Arts, Sciences, &c. Till the year 1264, from the introduction of Christianity into Iceland, it was the only place in the North where literature was cultivated. The Scandinavian legends were wild and warlike. The Scalds were the poets and historians, and the Sagas recalled the memory of the past in stories. These traditional histories and poems were collected by Saemund Sigfussen, who was born A. D. 1056. This collection is called the Edda. The mythology of the Scandinavians was copious. Divine honors were paid to Odin, who was supposed to be a sanguinary deity, receiving into his paradise Valhalla, only the brave and warlike. Friga, his wife, was the second deity, and Thor the third. There were many others inferior.

19. Religion. The religion is strictly Lutheran, and the parishes are in number 184. The clergy, who are all natives of the island, are but partly maintained by tithes; they cultivate the glebe attached to the churches, and many of them are obliged to follow the occupation of fishermen. The richest living in the island does not produce 200 rix dollars, and there are parishes in which the stipend is as low as 5. But the clergy are faithful if not for hire. Every one keeps what is called a "register of souls," or a statement of the conduct, abilities, and proficiency of each individual in the parish. The family books are also entered in this register, which is given to the Dean at his annual visitation. Every clergyman is bound to visit every family in his parish at least twice a year, when he catechizes every inmate, old and young.

20. Government and Laws. Iceland is a colony of Denmark; the Governor is appointed by the King, and holds his office 5 years. The laws are of the mild character that befits a country where crimes are almost unknown. Fines, imprisonment, and whipping are the only penalties inflicted in Iceland. Criminals that are capitally convicted are sent to Copenhagen to be beheaded, as, for many years, no person has been found on the island to execute the sentence of the law.

21. History. Iceland was settled by the Norwegians in the 9th century, and for many years constituted an independent republic. In 1264, it came under the dominion of the King of Norway, and was subsequently transferred with that country to the crown of Denmark, under which it remains at present.

CHAPTER LI. NORWAY.

1. Boundaries and Extent. Norway is bounded north by the Northern Ocean, east by Sweden, south by the Scagerrac, west and northwest by the German Ocean. It extends from

58° to 71° 11' N. latitude, and from 5° to 30° E. longitude. It is a narrow strip of territory, for the most part not exceeding 60 miles in length, and contains 130,000 square miles.

2. *Mountains.* The *Norwegian Mountains* form a grand chain, extending northeast and southwest nearly 1,200 miles. The northern part of this chain forms the boundary between Norway and Sweden; in the south, it bears the name of the *Seseberget*, and *Dovrefield*, and further north, the name of the *Kioelen* mountains; The highest point of the chain, is the *Scagatlostind*, in the Dovrefield range, which is 8,400 feet above the sea. There are glaciers in these mountains, presenting beautiful and fantastic masses of ice, which are ascribed by the simple northern tribes, to the powers of magic. It is the peculiar character of the Norwegian mountains, that they combine the grandeur of Alpine scenery, with the luxuriant softness of the vales of Italy.

3. *Rivers.* Numerous streams descend from the mountains, but none are navigable, and none are considerable for length except the *Glommen* which rises in Lake Oesting, and flows southerly into the sea at Frederickstadt. Cataracts and shoals obstruct its course in every part, and the only use to which it is applied, is that of floating down timber from the mountains.

4. *Lakes.* The lakes are numerous, and many are of considerable size. The *Miasen* is 60 miles in length, and 18 wide. The *Rundson* is 50 miles long, and 2 in width. The *Lake of Fæmund* is 35 miles long, and 8 wide. In many of the lakes are floating islands, or *mar-dynes*, composed of pieces of turf, or sea-grass; torn from the shores by the water, and matted together by the force of the currents.

5. *Islands.* The *Loffoden Islands* lie on the northwestern coast, and form a crescent round a bay called the West Fiord. The largest is *Hindooen*. They consist of high mountains, covered with perpetual snow. Nearly all the remainder of the coast is strewn with small rocky islands, called, in the language of the country, *holms*.

6. *Bays.* The branches of the sea, which indent the whole coast of Norway, are almost innumerable; but they afford scarcely one good harbor. Among the Loffoden Islands is the whirlpool of *Maelstrom*, which in rough weather is very dangerous to ships.*

7. *Capes.* The two most remarkable capes lie at the two extremities of the country. *North Cape*, at the northern extremity, is formed by several islands lying close to the shore; they consist of high craggy rocks, and exhibit the most dreary and desolate appearance. The southern extremity of Norway is called the *Naze*, and forms the northern point of the entrance to a strait called the Sleeve, which communicates with the Baltic.

8. *Climate and Soil.* Norway extends within the Arctic circle, and its northern part is exposed to all the rigors of a polar winter; here the sun continues above the horizon in summer, for two months and a half, and in winter remains below for an equal space. There is hardly such a thing in Norway, as spring or autumn, the summer's heat so suddenly succeeds the cold of winter. In the southern parts are some tracts of considerable fertility, yet the soil of Norway, generally, is stony and barren; and in many parts it may be said there is none at all.

9. *Geology and Minerals.* These wild regions consist almost wholly of the primary stratified rocks; gneiss is the most frequent and abundant; the mica-slates, clay-slates, and hornblende rocks being subordinate to it. Veins of granite, sienite, and porphyry occur, and there are beds of transition limestone, and old red sandstone. Norway possesses quarries of granite,

* An American captain gives the following description of this celebrated phenomenon. "I had occasion, some years since, to navigate a ship from the North Cape to Drontheim, nearly all the way between the islands or rocks, and the main. On inquiring of my Norwegian pilot about the practicability of running near the whirlpool, he told me, that with a good breeze it could be approached near enough for examination, without danger, and I at once determined to satisfy myself. We began to near it about 10, A. M., in the month of September, with a fine leading wind, northwest. Two good seamen were placed at the helm, the mate on the quarter-deck, all hands at their station for working ship, and the pilot standing on the bowsprit between the night-heads. I went on the main-top-sail yard with a good glass. I had been seated but a few moments, when my ship entered the dish of the whirlpool. The velocity of the water altered her course 3 points towards the centre, although she was going 3 knots through the water. This alarmed me extremely for a moment. I thought destruction was inevitable. She,

however, answered to her helm sweetly, and we ran along the edge, the waters foaming round us in every form, while she was dancing gayly over them. The sensations I experienced are difficult to describe. Imagine to yourselves an immense circle running round, of a diameter of one mile and a half, the velocity increasing as it approached towards the centre, and gradually changing its dark-blue color to white, — foaming, tumbling, rushing to its vortex, very much concave, as much so as the water in a tunnel, when half run out; the noise, too, hissing, roaring, dashing, all pressing on the mind at once, presented the most awful, grand, and solemn sight, I ever experienced. We were near it about 18 minutes, and in sight of it 2 hours. It is evidently a subterranean passage. From its magnitude, I should not doubt that instant destruction would be the fate of a dozen of our largest ships, were they drawn in at the same moment. The pilot says, that several vessels have been sucked down, and that whales have also been destroyed."

marble, millstones, and slate, and these articles are exported. The silver mines of Kongsberg formerly afforded rich returns, but have ceased to be productive. There are valuable copper mines near Ræraas and Drontheim; the principal iron mines are those of Arendal and Krageroc in southern Norway, but there are numerous others; the annual produce of the iron-mines of Norway is 150,000 tons. There are also some mines of gold, lead, cobalt, plumbago, and alum.

10. *Vegetable Productions.* Immense forests of pine, fir, birch, ash, &c., cover the mountains, and furnish the only important natural productions of the vegetable kingdom.

11. *Animals.* Norway has the same animals with Sweden; but the glutton and the lemming or Norway mouse, are in some degree peculiar to this country.

12. *Face of the Country.* A great part of this territory is occupied by mountains, interspersed with romantic glens and fertile valleys, especially in the southern parts. It is intersected by many streams full of cataracts, and lakes and ponds bordered with trees of variegated foliage, and forests of tall and stately pines and firs. These afford the most striking scenery, but the multitude of naked rocks and barren mountains, give the landscape rather the appearance of grandeur than of beauty. Marshes and fens occupy large districts, and nowhere in Europe are found such a number of precipices, cataracts, and glaciers as here.

13. *Towns.* *Christiania*, the capital, stands in a fertile valley on the shore of a bay. It is built with regular streets, which are kept very clean; there are many beautiful villas in the neighborhood, and the country around it has several productive copper mines. The town has a military hospital, a university, four churches, two theatres, and enjoys a considerable trade in the exportation of deals, tar, and the product of the mines. Population, 27,500. *Bergen* stands upon a small bay skirted by mountains. It is built mostly of wood, and has a theatre, and two printing offices. The commerce and fisheries of the place are pretty active. The most noted buildings are the castle and cathedral. Population, 20,800.



Watchmen of Bergen.

Drontheim, or *Tronyem*, is one of the most flourishing towns in the kingdom. It stands on an arm of the sea, at the point of union of four great valleys. The streets are wide and regular, and the houses are mostly of wood. It exports iron, timber, and fish. It is the residence of a bishop, and has a magnificent cathedral in which the ancient

kings of Norway were crowned. Population, 14,000. *Kongsberg* is a considerable mining town, with a mint. Population, 14,000. *Stavanger* and *Drammen* are seaports with some trade. *Christiansand*, on the Scagerac, is chiefly important for its excellent port, into which ships often put for repairs and shelter. The little town of *Hammerfest*, on the island of Hvaloe, near the North Cape, is remarkable for being the most northerly town in Europe, in latitude $70^{\circ} 36'$. It is the capital of the province of Finmark, yet contains but 77 inhabitants. *Waarhuus*, in $70^{\circ} 22'$, is the most northerly fortress in the world.



Hammerfest.

14. *Agriculture.* The soil of Norway is often so shallow as not to admit of being ploughed, yet vegetation is amazingly quick; corn is sown and reaped within 6 or 7 weeks; and is raised under the 70th parallel of latitude; both the soil and climate, however, are unfavorable to agriculture, and no part of the country yields sufficient grain for the inhabitants.

15. *Commerce.* The exports of wood, fish, iron, copper, glass, alum, marble, kelp, dyeing

skins, pickled meat, hides, furs, feathers, oil, tar, and pitch. The imports are grain, wares, spirits, salt, and dry goods.

16. *Fisheries.* These are largely carried on, and are very productive. They employ 80,000 men, and produce yearly, \$ 1,500,000. *Vaage*, in the Loffoden Isles, is the central point of the northern fisheries. The herring fishery is not so productive as formerly.

17. *Divisions, Population, &c.* Norway is divided into 17 bailiwicks, but on maps it is often merely represented as consisting of 6 great divisions. Finmark, which is included in Lapland, Nordland, Aggerhuus, Christiansand, Bergen, and Drontheim. The population is 1,200,000. The revenue is 1,500,000 dollars. The military force is about 12,000 men.

18. *Inhabitants, Manners, &c.* The inhabitants of Norway are hardy and robust, and the women, like those of Sweden, are many of them beautiful. The dress is plain, and generally of a stone color, with white metal buttons and red buttonholes. Furs are much worn in winter. The language which is spoken in Norway, is the Danish. The usual food of the peasants is milk, cheese, and fish. Flesh and oat-bread, made hard, as in Sweden, are more rare. In times of scarcity the bark of fir trees is mixed with the oat-meal. A common soup is made of oat-meal or barley-meal, seasoned with a pickled herring or salted mackerel. The Norwegians, like the Swedes, are much addicted to the use of spirits, though without suffering the injurious effects produced by intemperance in warmer climates. The use of tobacco is general. The people are far more sprightly than the Danes, and it would not be easy to find a nation more cheerful than the Norwegians. They are brave, energetic, and patriotic. The peasants are frank and hospitable, and have great independence. Their mode of salutation, even to superiors, is by shaking hands, and this is the way also in which they return thanks for a favor.



Norwegian.

The Norwegians have some of the amusements common in Sweden, and they delight also in recounting tales of their ancestors, which, in their social meetings, they often do by turns. Skating upon the snow is a practice very common in this country. The skates are made of wood, and are very large. The snow is frozen so hard, that the skaters pass over it as swift-



A scene in Norway.



Skate-runners.

ly as upon ice. At Drontheim is a regiment of soldiers called skate-runners. They carry a rifle, sword, and a long, climbing staff, shod with iron. They go 200 or 300 paces apart, and move so swiftly, that no cavalry can approach them.

Without a great many establishments for education, the people, nevertheless, are not illiterate, and there are few peasants who cannot read and write. There are two seminaries for the instruction of teachers. There are many itinerant schoolmasters, who stay in a hamlet about two weeks at a time. There is not much national literature; and mathematics is the favorite study. The religion is Protestant, and there are some vestiges of paganism. At funerals a violin is played at the head of the coffin, and questions, as in various countries, are addressed

to the corpse, the best part of which is to ask pardon for having injured or offended the deceased during life.

19. *Government.* Norway is united to the Swedish crown, and governed by a viceroy. It is, however, so far independent, that the finances, legislation, and administration, are distinct. The Storting is the representative assembly, and has much higher powers and privileges than the Swedish diet. It assembles frequently, and without awaiting the royal summons, and the king has only a qualified veto on its proceedings. A highly republican spirit prevails in Norway, and the influence of the nobles is almost annihilated. The press is entirely free.

20. *History.* The early inhabitants of Norway were probably a tribe of the Finns, the ancestors of the modern Laplanders, who were conquered and driven out by the Goths. In the 9th century the country was divided into 10 or 12 small States, which were formed into one nation by Harold Hafager. It was repeatedly conquered by the Swedes and Danes, in the 10th, 11th, and 13th centuries. In 1380 it became, by marriage of the king, an appendage to the crown of Denmark, in which state it remained up to the present century. It was arbitrarily wrested from Denmark by the allied powers and transferred to Sweden, in 1814, much against the will of the Norwegians, as a reward to that power for joining the confederacy against France.

CHAPTER LII. SWEDEN.

1. *Boundaries and Extent.* Sweden is bounded northwest by Norway, east by Russia, the Gulf of Bothnia, and the Baltic, south by the Baltic, and west by Norway and the Cattegat. It lies between $55^{\circ} 20'$ and 69° N. latitude, and 11° and 24° E. longitude. Its greatest length is 1,200 miles; and its greatest breadth 350. It contains 170,000 square miles.

2. *Mountains.* The principal mountains are found in the chain which separates Sweden from Norway. *Mount Swucku* is the highest of this chain. *Kinekulle*, on the banks of lake Wener, consists of a number of terraces, rising one above another. *Raetrik*, another mountain, is estimated to be 6,000 feet above the level of the sea. One of the highest glaciers in Sweden occurs in the southern part of Lulea Lapmark, and has been long regarded by the superstitious natives with awe, being denominated, in the Lapponean language, *Sukitelma*, or the Hill of God. It forms three peaks, of the respective altitudes of 5,760, 5,870, and 6,178 feet.

3. *Rivers.* The principal river is the *Dahl*, which rises in the mountains between Sweden and Norway, and, after a course of 260 miles, falls into the Gulf of Bothnia. The rivers *Götha* and *Motala* are the outlets of the lakes Wener and Wetter. The other rivers are the *Tornea*, the *Kalix*, the *Lula*, *Pitea*, *Umea*, and *Ängermanna*.

4. *Lakes.* The largest lake is the *Wener*, which is 100 miles long, and 60 broad. It contains several islands, and receives 24 rivers. The *Wetter* is about the same length, but nowhere exceeds 25 miles in breadth. It receives about 40 small streams. By the Götha canal, between the Wetter and Wener, the German Ocean and the Baltic are united, and the dangerous navigation through the Sound is avoided. The *Malar* is 60 miles in length, by 18 in breadth, and contains a great number of small islands. The *Hiemar* is about 40 miles in length, and 20 in breadth.

5. *Islands and Seas.* *Gothland*, on the southeast coast of Sweden, forms, with some small islands surrounding it, a province containing 766 square miles. The island of *Aland*, in the Baltic, is 70 miles in length, and 6 in breadth. It is almost barren, but has some large forests, which abound in deer, hares, and wild boars. Sweden is washed by two seas, the *Cattegat* and the *Baltic*. The Baltic forms, in the northwest, the Gulf of Bothnia.

6. *Climate.* The cold of the winter in Sweden is intense; the spring is a rapid and constant alternation of rain, snow, and frost; the summer is short, but dry and pleasant, though from the great length of the days, and the reflection of the sunbeams from the rocks and mountains, the heat is sometimes excessive. Autumn is the finest season.

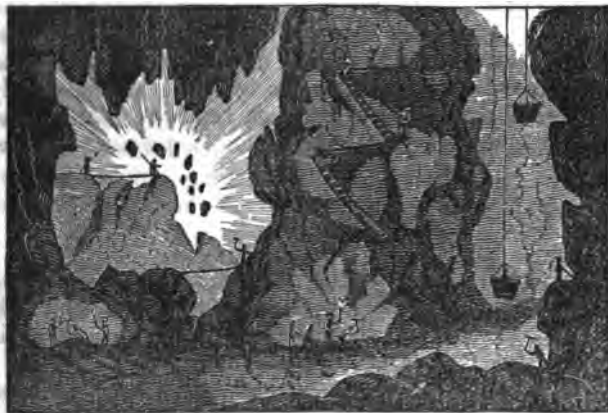
7. *Soil.* The soil is in general very poor, though there are some fertile spots; the greater part of Swedish Lapland is sterile, and covered with rocks, peats, or moss, and gravelly plains; there are a few tracts of soil tolerably good in the southern parts.

8. *Geology.* Most of the mountains are composed of granite, calcareous stone, and slate; the basis of the majority is granite, which is frequently found in large separate masses, rising to a considerable height.

9. *Vegetable Productions.* The spruce and Scotch firs are the most common tree. Vast forests of birch, poplar, and mountain ash overspread many parts. The oak, beech, and elm flourish in the south. Fruit trees are not indigenous; but a variety of berries are produced, the most delicious of which is the Arctic raspberry (*Rubus arcticus*), which, when ripe, is superior in fragrance and flavor to the finest strawberries.

10. *Mineral Springs.* There are about 360 mineral springs in Sweden, among which the baths of Medevi, and the wells of Lokä Later, Rambösa, and Rottenby, are the most celebrated.

11. *Minerals.* The mines of silver, copper, lead, and especially iron, constitute the chief wealth of this country. In 1738, a gold mine was discovered near Adelfors, which formerly yielded 40 marks annually, but it is now nearly exhausted. The principal copper mines are in Dalecarlia; that of Fahlun has been worked upwards of 1,000 years, and produces 2,000,000 lbs. of copper annually. The iron mines at Dannemora, in Upsala, produce the best iron in the world; they were discovered in 1488, and have no subterranean galleries, but are worked in the open air, like gravel-pits; they consist of 12 excavations, the whole extent of which collectively is 760 feet in length, by 500 feet in depth; the mines belong to 13 proprietors, who



Mine in Sweden.

maintain 1,579 workmen. The noted mountain of Taberg, in Smaaland, is one entire mass of rich iron-ore, 400 feet high, and 3 miles in circumference, and has been worked 200 years. The mines of Carlstadt are also numerous and productive; the most remarkable are those of Persberg; these are 13 in number, dug into a mountain wholly composed of veins and beds of iron-ore. In the wide abyss, suddenly appears a vast prospect of yawning caverns and prodigious machinery. Immense buckets, suspended by rattling chains, pass up and down; ladders scale the inward precipices, upon which the workmen look like pigmies; the clanking of chains, the groaning of pumps, the hallooing of the miners, the creaking of the blocks and wheels, the trampling of horses, the beating of hammers, and the loud subterranean thunder from the blasting of rocks, produce an effect that no one can witness unmoved. There are rich mines of iron in other parts, which, owing to the difficulties of transportation, are not worked. The whole annual produce of Sweden, is nearly 2,000,000 tons. Sweden likewise produces porphyry, rock-crystal, coal, cobalt, alum, sulphur, vitriol, and antimony. Nearly all the fine modern works in porphyry, are of the porphyry of Elfdal.

12. *Animals.* The wild animals of Sweden are wolves, bears, beavers, elks, reindeers, foxes, hares, and squirrels. The Swedish wolves are not so fierce as those which infest the southern parts of Europe. In winter, the foxes and squirrels become gray, and the hares as white as snow. About 300 species of birds are found in the country. The rivers and lakes abound in fish.

13. *Face of the Country.* Sweden is intersected by numerous marshes, hills, and lakes, and, beyond the 60th degree, appear vast tracts of wild and uninhabited land, approximating, as we proceed northwards, to the sterility and bleak aspect of the polar districts. Nature in various places presents the wildest and most sublime features; but in general the scenery is uniform. The coasts surrounding the Bothnian Gulf and the Baltic are bold and rugged, indented with numerous bays, and stretching out into imposing promontories.

14. *Divisions.* Sweden may be divided into 3 parts, viz. northern, southern, and middle Sweden; which are subdivided into 24 län or provinces. The ancient divisions were Gothland, Lapland, Norland, and Sweden Proper.

15. *Canals.* The *Canal of Trollhatta* opens a communication between the North Sea and Lake Wener, by forming a new channel where the Gotha is rendered unnavigable by cataracts. Lake Malar is united with the Hielmar by the *Canal of Arboga*; with Lake Barken,

by the *Canal of Stromholm*; and with the Baltic, by the *Canal of Sodertelge*. The *Canal of Gotha* extends from Soderkoping, on the Baltic, across the peninsula, by the lakes Wener and Wetter, to Gottenburg, on the Cattegat, 150 miles; this canal is 24 feet deep, and 24 feet wide.

16. *Towns.* *Stockholm*, the capital, is situated at the junction of the lake Malar with an inlet of the Baltic. It stands upon seven small, rocky islands, beside two peninsulas, and is built upon piles. A variety of picturesque views are formed by numberless rocks of granite rising boldly from the surface of the water, partly bare and craggy, partly dotted with houses, or adorned with gardens and trees. The central island is bordered by a stately row of buildings, the residences of the principal merchants. It contains the palace and other public buildings; but the houses being high, and the streets narrow, its appearance is somewhat gloomy; the number of bridges, great and small, in this capital, is 13. At a short distance from the royal palace stands a fine statue of Gustavus the Third, in bronze, on a pedestal of polished porphyry. Constantinople is perhaps the only city in Europe that surpasses it in beauty of situation; the royal palace is hardly exceeded in splendor by any on the continent. The city has likewise an arsenal, a mint, an exchange, two theatres, the palace of the diet, numerous learned institutions, &c. The *hangar*, or great iron warehouse, is remarkable for the immense quantity of that article deposited in it. The commerce and manufactures are extensive; the harbor is deep and capacious, though difficult of access; a thousand sail of shipping may lie here in safety, and the largest vessels can approach close to the quay. Population, 88,000.

Upsala, formerly the metropolis of Sweden, is situated on an extensive plain, upon the small stream Fyrisa. In the centre is a square, from which the streets extend in straight lines. This town is famous for its beautiful cathedral and for its university, which has a library of 60,000 volumes. Population, 5,000.

Gothenburg or *Gottenburg*, near the mouth of the river Gotha, has a circumference of three miles. It is regularly fortified, and, in the upper part of the town, the streets rise above each other like an amphitheatre. Some of the modern buildings are of brick, but the greater number are of wood, and painted red. The harbor is spacious, and the commerce considerable. Population, 30,000. *Carlserona*, on a bay of the Baltic, is the station of the Swedish navy, and has a harbor which is defended at its entrance by two strong forts. It is celebrated for its docks, which are separated from the town by a high wall, and one of which is cut out of the solid rock. Population, 13,800.

Oerebro, at the western extremity of Lake Hiellmar, carries on an extensive iron trade. Population, 3,400. *Malmoe*, exactly opposite Copenhagen, contains about 5,000 inhabitants, and possesses some commerce, though the harbor is bad. *Fahlun*, 160 miles north of Stockholm, is remarkable for its extensive copper mines. The number of forges here give the town a very sombre appearance. Population, 4,700. *Gefle*, on the Gulf of Bothnia, is a well-built town, with some foreign commerce. Population, 10,000. *Norrkoping*, 10,000 inhabitants, with extensive woollen manufactures; *Lund*, 3,500, containing a university, observatory, and other learned establishments; *Wisby*, on the island of Gothland, formerly one of the principal cities of the north of Europe, and still, though much declined, carrying on a brisk trade, 4,000 inhabitants; and *Calmar*, noted in Swedish history, are the other principal Swedish towns.

17. *Agriculture.* Much attention has been paid to agriculture, and the peasants are very industrious; but owing to the deficiency of the soil, they are hardly able to raise enough of grain for home consumption. Corn, rye, oats, potatoes, flax, hemp, hops, and tobacco are very generally cultivated; and several kinds of fruit are raised with success.

18. *Commerce and Manufactures.* Sweden has few manufactures, and Norway even less; and the products of their manufacturing industry cannot sustain a competition with those of other countries. The working of the mines, the manufacture of glass and hardware, ship-building, and the felling and preparation of timber, employ many laborers. The peasants in general make their own rude implements and materials of dress. The fisheries form an important branch of industry, particularly in Norway. The maritime commerce of this country is active and extensive; and a brisk inland trade is carried on between Norway and Sweden, and between the latter and Russia. The imports are chiefly manufactured and colonial goods; the exports are iron, steel, lumber, dried and salted fish, iron wares, cordage, &c.

19. *Revenue, Population, &c.* The annual revenue of Sweden, arising from the rents of crown-lands, capitation taxes, customs, and various other articles, amounts to 4,500,000 dollars. The national debt has been paid off. The military force amounts to 40,000 men.

The population is 3,200,000. Sweden holds as a colony the island of St. Bartholomew, in the West Indies.

20. *Inhabitants.* The Swedes are of the middle size, and few of them are corpulent; they have ruddy complexions and flaxen hair, though the women often have auburn hair and blue eyes; the females are distinguished for beauty. There is little diversity of appearance in the Swedes, and they seem to a foreigner rather as members of the same family than natives of a large country. All have a very composed demeanor. There are four orders in the state; nobles, clergy, peasants, and burghers, or citizens of towns.

21. *Dress.* The Swedes have a national dress, established by law, about 60 years ago; the females, however, have little scruple to break this ordinance; the general color is black, but on gala days, it is blue lined with white. The dress of ladies is somewhat like the English, except in the sleeves, which are Spanish. Veils are common. The coats of the men are short and close; they are fastened around the body with a sash; the cloak is black, but lined with gayer colors. *Galoches* or outward shoes are worn in winter, and a fur or sheepskin over-dress is then indispensable and universal. The peasantry in Dalecarlia are called *white* or *black*, as they are dressed in either color; and almost all wear one or the other. They wear huge shoes with thick wooden soles, and a hat like a quaker's. Generally, in Sweden, the hats have a feather, and no gentleman is in full dress without a sword. The Swedes in general are comfortably and neatly clad.

22. *Language.* The language is a Germano-Gothic dialect, similar to that of Denmark.

23. *Manner of Building.* The houses, except at Stockholm and in Scania, are of wood. The peasants have log houses, and fill the interstices with moss; the roof is covered with birchen bark and turf. In summer the floors are sometimes strewed with odorous twigs. In the mountains of Dalecarlia, the houses are very simple. Many of the country houses are of several stories, and make a good appearance. Some of them are so constructed, that they may be taken down and removed in a short time. The beds of the common people are placed one above another, on shelves, as in the berths of a ship.

24. *Food and Drink.* The common people live chiefly on hard bread and salted or dried fish; they consume much beer and spirits, and a great deal of wine is drank by the higher classes. The bread is baked but twice a year, and it is hung around the room in small loaves, on strings, like dried apples in New England. It is extremely hard. The brandy is of a fiery quality, and no dinner is complete without several glasses. Ladies, even, will take more than one. Before a dinner, the guests are led to a side-table furnished with liquors and slight food, as a preliminary to the more important repast. The dishes are all brought on the table at once, and the guests do not ask for any particular one. All are circulated in turn, and all are partaken, unless the guest prefers to sit with an empty plate till his favorite dish may arrive. After dinner, the guests gravely thank the host for his entertainment. The Swedes, like all northern people, use much tobacco.

25. *Traveling.* The roads of Sweden are hardly inferior to those of England, and the facilities for traveling are better than in the other northern countries. The roads are kept in repair by the peasants; each family of which has its portion marked with bounds. The inns have few comforts, though all have a "traveler's room," with a bed, or at least a berth of boards. The horses are small, but active and sure-footed; they go at full speed down the steepest and largest hills, and are seldom known to stumble, though in the busy seasons they are driven by boys or women. The peasants are obliged to furnish the post-horses, and a traveler who would not be delayed at every post-house, sends a *forbode* or courier, to notify the post-masters. There are no public carriages, and all travelers must furnish their own vehicles. At the inns are kept registers, in which the traveler writes his name, &c.; and, as one column is made for complaints, it is usual for him to take this opportunity. A second column is appropriated to the innkeeper's defence. These books are curious miscellanies, and display national as well as individual character. Acerbi has extracted from one of them the remark of an Englishman, that "the Swedes are all slaves, crouching to their masters;" which is followed by a more just and generous exclamation, "God bless this good and brave nation," signed, *Kosciusko*.

26. *Character, Manners, and Customs.* The Swedes have many amiable traits in their character, though they do not lack energy; they are kind, cheerful, and faithful; they love their country, and are much attached to free institutions and principles of equality. In this and in other respects, they sometimes resemble the Swiss. The mountains of Dalecarlia have

always been the abode of freedom and simplicity of character. The Swedes are gentle, though brave and warlike; and the peasants are uncommonly civil and obliging. The people are hospitable to a great degree, and the character of a stranger is a ready passport to their houses. When the richer families leave their country-houses, a room and attendance is still appropriated to travelers, who receive as much care as though the master were present. The Swedes are descended from the hordes that overran the Roman empire, and they are no less brave and adventurous than their ancestors. In modern times, they have been the bulwark of the protestant faith; and one of their sovereigns has, with an inconsiderable army, conquered hordes as numerous and brave as the north ever sent forth to pillage the fertile south.

27. *Amusements.* The 1st of May and midsummer day are celebrated with general joy.



Swedes celebrating Midsummer Day.

On the latter occasion, the young men and women dance around a pole till morning. Dancing is common, and all classes dance with great animation and agility. Cards are a general amusement, though the Swedes are not addicted to gaming. All ranks play games at cards; the most common of which is that called Boston. It is said (to illustrate the national fondness for cards), that a nobleman, when his dinner-hour had arrived without the dinner, went into the kitchen to learn the reason of the delay; when he found all the domestics engrossed in a game. He admitted the characteristic excuse, that the game was at its most critical point, and could not, therefore, be deferred, even for dinner;

but he took the cook's hand, and played it, while that domestic performed his duty.

28. *Education.* There are a good many elementary schools, and education is as generally diffused as in Switzerland. There are few who cannot read and write. There are 2 universities, one at Upsala, and the other at Lund.

29. *State of the Arts, Science, and Literature.* The Swedes, with some other northern nations have an ancient literature, the Scandinavian, which has been noticed under the head of Iceland. In modern times, they have done much for science, in which many branches have been simplified and much advanced by Linnæus. Works of merit are translated into the Swedish language, in which the original works are chiefly scientific. There are several learned societies in Sweden. Sergel, a sculptor of great merit, left many monuments of his art in Sweden. He is one of the best of the northern sculptors.

30. *Religion.* The religion is Lutheran, and the Swedes are generally a devout people.

31. *Government.* This is a limited hereditary monarchy. The Diet has some resemblance to the British Parliament, and it is composed of 4 bodies, which meet in different houses, viz. the nobles, the clergy, the peasants, and the burghers or inhabitants of towns.

32. *History.* Sweden and Norway seem originally to have been peopled by Finnic tribes. The Gothic chiefs who conquered this country, assumed the title of Kings of Upsala, in the 5th century; but the Goths and Swedes remained distinct tribes for some centuries afterward. The whole peninsula was subject to Denmark in the 14th century, but in the 16th Gustavus Vasa delivered Sweden from the Danish yoke, and was elected king by his countrymen. The Reformation was soon after introduced into the country, and in the religious wars of the 17th century, the Swedes, under their king Gustavus Adolphus, gained a brilliant military reputation. Charles the Twelfth, in the beginning of the 18th century, after adding to this celebrity by a series of victories, which exhausted the blood and treasures of his subjects, was defeated at Pultowa by the Russians, and obliged to take refuge in the Ottoman dominions. Norway, which had previously belonged to Denmark, was annexed to Sweden in 1814.

CHAPTER LIII. LAPLAND.



Reindeer and Sledge.



Lapland Traveling.

1. *Boundaries and Extent.* Lapland is bounded north by the Arctic Ocean, east by the White Sea, south by Sweden, and west by Norway and the Atlantic. It extends from 66° to 71° N. lat., and from 15° to 40° E. long., and contains about 130,000 square miles.

2. *Mountains, Lakes, and Rivers.* Lapland is not intersected by very high mountains; and is crowned only on its western frontier by a mountainous chain, that forms the extremity of the Scandinavian Alps. The river *Tornea* springs from the lake of the same name, and, after a course of 300 miles, falls into the Gulf of Bothnia. The *Tana* and *Allen* fall into the Frozen Ocean. The lakes in Lapland are numerous; the *Great Lake*, *Tornea*, *Lulea*, and *Enara*, are distinguished for their romantic scenery.

3. *Climate.* In point of temperature, Lapland may be divided into two regions, the inland and the maritime. In the former, the winter is very severe, and the summer very hot. In the latter, the winter is comparatively mild, and the summer cold.

During the summer solstice, when the sun continues for weeks together below the horizon, there is only a twilight of a few hours, instead of a clear daylight. These dreary nights are, however, in some degree, compensated by the aurora borealis, which gleams here with uncommon splendor.



Aurora Borealis.

4. *Soil.* The soil is generally sterile. The greater part of the country is covered with rocks, peats, or moss, and gravelly plains. There are a few tracts tolerably good in the southern parts. The trees are the fir,

birch, larch, and small beech, which form vast, but not very thick, forests.

5. *Vegetable Productions.* Even these dreary regions, though strongly contrasted with more favored climes, have useful products. The spruce and Scotch firs cease to thrive at about 70° , the aspen and the bird cherry reach somewhat further, and the birch and mountain ash to yet higher latitudes. Beyond, the dwarf willow and birch, no longer trees, but shrubs, of 5 or 6 feet high, brave the rigors of the frigid zone. The Iceland moss (*Lichen*

islandicus), reindeer moss, cudbear (*L. tartareus*), collected for the dyers, the crowfoot (*ranunculus*), saxifrages, cranberry (*empetrum*), ling, winter-green, &c. are among the last remnants of expiring vegetation. The root of the *calla palustris*, a plant of a poisonous family, affords the Laplanders a kind of substitute for bread, called Missenbrod, or bread of famine.

6. *Minerals.* Lapland abounds in metals and minerals. Native gold has been found at Svappawara; copper, iron, lead, zinc, and plumbago are found in various parts. Limestone, marble, gypsum, rock-crystal, jasper, amethysts, and garnets, are also among the mineral productions of this country.

7. *Animals.* The reindeer is the most useful animal to the Laplander, and seems to have been provided by nature to recompense him for the want of the other comforts of life. In summer it provides itself with leaves and grass, and in winter lives upon moss; and its milk and flesh afford excellent nutriment, while its skin forms the chief clothing of its master. Its speed is scarcely credible; for it can run 200 miles in a day. In a kind of sledge, shaped like a small boat, and with the reins fastened to the horns of the deer, the traveler may journey with ease almost any distance. Besides this animal, bears, wolves, lynxes, and beavers are often met with in Lapland. Innumerable insects are produced in summer; and the inhabitants are infested with mosquitoes to an intolerable degree.

8. *Agriculture.* Except in a few sheltered valleys, and on the banks of the rivers in the southern districts, there is little cultivation. The grain which grows best, and is chiefly sown, is barley, or rather bigg; and oats are raised in small quantities. The tobacco plant flourishes well.

9. *Commerce.* The Laplanders carry on some trade in the skins and furs of quadrupeds; such as ermines, sables, squirrels, foxes, bears, lynxes, and wolves, which they transport from



Traveling in Lapland.



Trading Company of Laplanders.

the interior to the coast by means of their reindeer. In return, they receive meal, cloth, various utensils, spirituous liquors, &c. As the furs are of extreme fineness, they bear a high price.

10. *Population.* Lapland is very thinly peopled. The whole population probably does not exceed 60,000.

11. *Inhabitants.* The Laplanders are generally short in stature, and they have sharp chins and prominent cheek bones. They differ from the Fins in having dark hair, though the complexions are frequently light. They have a tolerable share of strength, with great suppleness and agility, and they endure much hardship with patience.

12. *Dress.* The materials are generally the skins of animals; though the Laplanders who have permanent habitations, wear in summer, woolen stuffs, and shirts, which the wandering inhabitants have not. The men wear a conical cap, and in hunting, a hood, covering the breast and shoulders, and with only a small opening for the eyes. They rarely wear any covering round their necks, which are exposed in the severest weather, or defended only by a piece of narrow cloth, going once round. They wear a tunic, or short coat of sheep-skin,

with the wool inwards, and close before, except on the breast. Over this, which is worn next the skin, is a similar garment of woollen, or skins, with a stiff collar. The Laplander has no



Lapland Tent.



Manner of sitting in Lapland.

pocket, but hangs a small bag at his breast, in which he puts his little implements. The gloves are of skins, and lined with cypress grass. There are no stockings, and the pantaloons do not

reach to the ankle. Instead of stockings, straw and rushes are stuffed into the shoe, around the foot and ankle. The men wear leathern belts. The dress of the women is not very dissimilar to that of the men. At night, even when the cold is most intense, the mountain Laplanders go to bed naked, and cover themselves with their dress and skins. They put their feet within a bag.



A Russian Laplander.

13. *Language.* The language is entirely distinct from any other, except the Finnic, to which it has some analogy.

14. *Manner of Building.* The Laplanders live in huts, or, in summer, in tents. The huts are so small, that the people cannot stand upright, except in

the centre. They are built of sods and stone, and covered with bushes, turf, and earth. The household furniture consists in iron or copper kettles, and wooden cups, bowls, and spoons. Some of the wealthy have tin, and even silver basins.

15. *Food and Drink.* The reindeer supplies the chief articles of food, though something is obtained by fishing and hunting. In summer, the reindeer's milk is boiled with sorrel to a consistence, and is thus preserved; in winter, it is kept frozen in the paunch of a reindeer, and mixed with cranberries. It is broken up with a hatchet. When cheese is made, the milk is mixed with water, otherwise it is too rich to curdle. The rennet is the sound of the codfish. In winter, the mountain Laplanders slaughter one or two reindeers weekly, according to the numbers of a family. The marrow is boiled out as a present for the missionary. On the seacoast, there is some beef and mutton; besides which, the Laplanders eat all flesh, except that of swine; but pork is to them an abomination. Little bread is used; but the inner bark of the fir-tree, and the roots and leaves of the herb angelica, are eaten with avidity. The great luxury of a Laplander is tobacco; and he will even chew strips of the bag, or chips of the cask, that has held it. Brandy is indeed a great favorite with the people, but it is too scarce for any, but for occasional indulgence. The office of cook in all its branches is filled by men, and in this the women never interfere.

16. *Diseases.* The only epidemic is a colic, attended with spasms, but it is not fatal; chronic disorders, fevers, and dysenteries, are unknown. Chilblains are frequent, but in general the Laplanders are free from disease.

17. *Traveling.* The Laplanders travel on sledges, drawn by the reindeer, as before described. In descending hills, in winter, long skates are worn. With these the Laplanders



Lapland Snow-shoes.

maux, they have the greatest aversion to war. A Laplander has never been known as a soldier. The people resist all inducements to leave their country. They are not without sensitive feelings, and are known to weep from sympathy and compassion.

19. *Amusements.* The Laplanders are expert wrestlers, and they have several athletic sports. They throw javelins at a mark, leap over sticks held by two persons, &c. They have the game of fox and geese, which is in great request.

20. *Religion.* The Laplanders have renounced their pagan creed, though some of its rites and superstitions remain. They attend to the instructions of the missionaries with great attention and seriousness. They never use profane language, and they observe the Sabbath strictly. In 1738, the Bible was translated into their language, and there are now Lutheran hymn-books, tracts, &c. Since the first translation of the Bible, a second and third have been made. There are 23 churches, and 7 schools, chiefly under the care of the missionaries.

Marriages and funerals are not conducted with much ceremony. The family and friends of a young man, go in a body to solicit, in courtship for him, and presents are made. Should the parents of the female retract their consent, the presents are restored, and even the brandy that was drank, is replaced.

The Laplanders make professions of sorcery, and the females sometimes are distinguished as witches. Their mode of divination is with the Runic drum, and by a system of omens. The pagan superstitions are, however, gradually becoming extinct.

21. *Divisions.* Lapland is divided between Sweden and Russia. Swedish Lapland occupies the southwestern quarter of this country, and is divided into 4 lapmarks, or provinces; Russian Lapland forms the eastern part, and is included in the government of



Wedding Party.

Archangel; Norwegian Lapland extends the whole length of the Severnoi, on their northern side, and forms the province of Finmark. A large portion of the Laplanders are practically under no government whatever

CHAPTER LIV. FINLAND.

1. *Boundaries and Extent.* Finland is bounded north by Lapland, east by Russia, south by the Gulf of Finland, and west by the Gulf of Bothnia. It lies between 22° and 32° east longitude, and extends south to latitude 60° ; the northern limit is not very distinctly marked. It contains 135,000 square miles.

2. *Mountains, Rivers, and Lakes.* A tract of table-land in the interior, extends in a declivity toward the shore of the Gulf of Bothnia. There are other ranges in the eastern parts, but they have not been explored. The country is intersected by an immense number of lakes, giving rise to many rivers, but none of them are of great length, and the shallows, and cataracts which they contain, render them useless for navigation. The *Payanæ*, or *Peaceable* lake, in the central part of the country, is 170 miles long, and 13 broad. The lake of *Saimen*, in the eastern part, is 250 miles long, and 22 broad, and is crowded with islands. It communicates with lake Ladoga, by the river *Woza*, which falls over 6 cataracts. The coasts are rocky, and strewn with small islands, separated by narrow and intricate channels.

3. *Climate.* In the north, the climate resembles that of Lapland. In the south the thermometer seldom falls so low as 25° below zero ; and the crops are exposed in summer to excessive droughts.

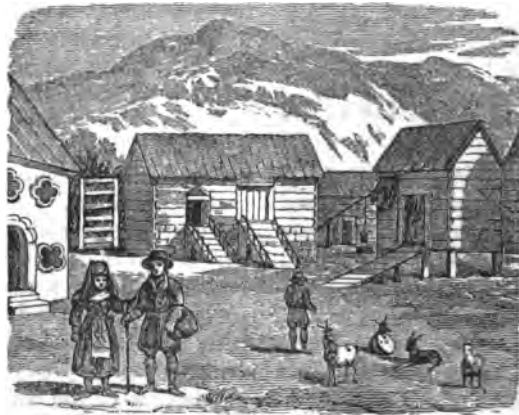
4. *Soil and Productions.* The soil is more productive than might be inferred from the geographical position of the country. It is for the most part a vegetable mould, and exceedingly moist. Forests, similar to those of Sweden and Lapland, are abundant. Iron was formerly produced here, but no mines are worked at present. The country furnishes great quantities of rûtre.

5. *Face of the Country.* The northern part is hilly. The eastern part is covered with sand-hills and rocks, and intersected by marshes, lakes, and rivers, which diffuse cold and unwholesome mists.

6. *Divisions and Towns.* Finland is divided into 7 circles. Viborg, Kymenegard, Tavastehuus, Abo, Kuopio, Vasa, and Uleaborg. *Helsingfors*, the capital, is situated on the Gulf of Finland, and has a good harbor, and considerable commerce. The university has been removed to this place from Abo, since the destruction of the latter place by fire. Population, 8,000. *Helsingfors* contains a naval arsenal, but is chiefly important from the vicinity of Sweaborg, the Northern Gibraltar. The fortress consists of 3 islands, connected by bridges, mounts 800 cannon, and has accommodations for 12,000 men.

Abo, at the entrance of the Gulf of Bothnia, was formerly the capital. It was one of the most agreeable towns in the country, and had manufactures of silk and woollen, ship-building, and sugar refineries, with a population of 12,000 ; but it was almost totally destroyed by fire, in 1827. *Siborg* was the capital of the former Russian Finland, and of all western Russia, till the building of St. Petersburg.

7. *Inhabitants.* The Finlanders are of small stature, light complexions, and fair hair, worn



Finlander's House.

uncombed down each side of the face ; they are sharp featured, and generally without any apparent beard. The appearance of one differs little from that of another. They wear woollen kaftans, short to the knee, with loose black pantaloons and caps. The women wear a linen robe over their clothes.

The houses of the peasants are well built and comfortable. The general food is milk, salt herring, and salt meat. The Finlanders are cheerful, kind, and very hospitable. A stranger receives much attention. He is always the principal person in a company, and much pains are

taken to please him. When he has succeeded in rendering himself agreeable, it is a custom at an assemblage for all the women present to give him a sudden slap on the back, when it is least expected ; and the compliment is in proportion to the weight of the blow.

8. *Education.* Education is much less diffused than in Sweden, though there is a university at Helsingfors.

9. *Amusements.* Amusements are not rare among so cheerful a people, though they are not much given to dancing. They have many athletic sports, and the *bear dance*, from the strength required, may be considered one. It is practised sometimes by the peasants. It is performed on *all fours*, or the dancer rests on his hands as well as feet, and by leaps and jumps keeps time with the music. It is so fatiguing, that the dancer in a few minutes falls into a violent perspiration. The peasants shoot the rifle with much skill, and seldom miss the smallest mark. They hunt the wild animals in various ways, and engage the most dangerous of them singly, and fearlessly. They sing to the *harpu*, or sort of harp ; two men sitting opposite, with locked hands, accompany the song with alternate verses, raising each other alternately from their seats.

The violin is not uncommon, and the Finlanders have some turn for poetry as well as music. Every event of public or private interest, finds a poet to celebrate it. The poets console with friends at a death, and rejoice with them at marriages. They have also satires and tales. Almost all the peasants have a house built for the purposes of a bath, which they use generally, and with little regard to delicacy. It is a small chamber in which are a number of stones. These are heated till they become red-hot, when water is thrown upon them, and the company is involved in a cloud of vapor. The bathers rub themselves and lash their bodies with twigs, till they become red with scourging. In winter they go from the bath, which is so hot that it is barely tolerable, and roll themselves in the snow. This they do in the coldest days.

10. *Religion.* The religion is Lutheran, but there are some pagan superstitions. There are charms for the bite of a serpent, for scalds, burns, wounds, &c. ; diseases are supposed by many to be the effect of witchcraft. The marriages are attended with ceremony and rejoicing.

11. *Agriculture, &c.* The inhabitants cultivate barley and rye, and fell timber. The fir trees of the interior afford great quantities of tar ; and potash is manufactured to some extent. The products of the forest are sufficiently abundant for exportation. Fisheries are largely carried on.

12. *Government, Population, &c.* Finland is a portion of the Russian Empire, with the title of a government. The population is 1,350,000. The prevailing religion is Lutheran. The country was formerly a province of Sweden, but came into the possession of Russia in 1809.

CHAPTER LV. LATEREPUBLIC OF CRACOW.

THIS republic consisted of a territory of 500 square miles, formerly a part of Poland, and now surrounded by the Russian and Austrian territories. The country is a plain, extending along the banks of the Vistula, which becomes navigable immediately under the walls of the capital. The soil is fertile, and the climate warmer than in the rest of Poland. The general appearance of the country is picturesque. The city of *Cracow* is the capital, and was once the capital of Poland. It has a large dilapidated castle, and a cathedral remarkable for its 50 altars and 20 chapels, and as the burial-place of many of the kings of Poland. Here are 70 churches and several magnificent convents. The streets are irregular. The city contains a large square, but the buildings which surround it are mean. The university is a magnificent edifice, and is the most ancient seminary in Poland. A remarkable monument has lately been erected here in honor of Kosciusko ; it consists of a mound, called *Mogila Kosciusko*, or *Kosciusko's Mount*, 300 feet in height, and 275 feet in diameter at the base. Population of the city, 26,000. *Kressovice* has a population of 4,000. *Krzano*, 1,300. The whole population of the republic was 150,000.

The chief production is grain. The agriculture is superior to that of the other Polish countries, yet in bad seasons the land does not produce sufficient corn for the subsistence of the inhabitants. Cattle are raised in considerable numbers. Fruits are reared in the neighborhood of the capital, and the vegetables are in high reputation. At *Kressovice* are several iron works,

but there are no other manufactures except domestic fabrics. The government is an aristocratical republic. The assembly or legislative body consists of the representatives of the corporations, the clergy, and the university; the executive authority is vested in a senate chosen for life by the assembly, and a president chosen by the same body for two years. The chief magistrate is a President, chosen every 3 years. The revenue is 133,248 dollars; the debt 10,000 dollars. The inhabitants are mostly Poles, and the Polish language is everywhere predominant. The religion is Roman Catholic, but all sects are tolerated. There is no distinction of rank among the inhabitants, except that the members of the chapter of the cathedral and of the university possess a few unimportant privileges.

This little community owed its existence to the disputes of the three despotic powers, that partitioned the kingdom of Poland. In 1815, when the final destiny of Poland was decided at the congress of Vienna, the Austrian and Russian monarchs respectively laid claim to the city and territory of Cracow, situated at the point where the newly acquired territories of these two powers join those of Prussia. To this fortunate position, Cracow was indebted for its exemption from the fate of the rest of Poland. The holy allies, unable to determine which of their number had the best right to the territory, resolved that neither should possess it; and Cracow was declared a republic under the protection of the three surrounding powers. But in 1846 it was annexed to Austria.

CHAPTER LVI. POLAND.

1. *Boundaries and Extent.* The late kingdom of Poland is bounded north by Prussia, east by Russia, south by Galicia and Cracow, and west by Prussia. It is nearly a square of 200 miles in extent, and contains 48,000 square miles.

2. *Rivers.* This country is intersected by the *Vistula* and its head streams, the *Bug*, *Narew*, and *Pelica*. The *Nieman* forms a part of the northern boundary. There are a variety of smaller streams, and the country is in general well watered.

3. *Soil, Productions, &c.* The soil is generally thin and sandy. There are many marshy tracts, and the face of the country is diversified with fruitful fields, steppes, heaths, impenetrable forests, and wide moors. The forests are sometimes 15 or 20 miles in extent, and a great part of the country is covered with wood. The general aspect of the country is that of an unbounded plain; there is hardly a hill or mountain in the whole territory. *Poland*, in the Slavonian language, signifies a plain, or flat country. The climate is everywhere temperate, but as the land lies open to the north wind, the air is not so mild as in the neighboring parts of Germany.

4. *Divisions.* This kingdom is divided into eight palatinates or waiwodships: Cracovia, Sandomir, Kalisch, Lublin, Plock, Masovia, Podlachia, and Augustow.

5. *Cities.* *Warsaw*, the capital, stands on a bank of the *Vistula*, on a rising ground. It is very irregularly built, and has several suburbs, the principal of which is *Praga*, with which it is connected by a pontoon bridge. The city presents a heterogeneous aspect. It has above 100 splendid palaces, surrounded by a mass of wretched huts. Streets of noble dimensions, and adorned with edifices in the finest Italian style, are contrasted with groups of beggarly wooden piles, threatening every moment to fall. The palace of Sigismund is very spacious, and has a colossal bronze statue of the Emperor Sigismund the Third. The *Marieville* is a large building, constructed on the plan of the *Palais Royal*, at Paris, and contains the exchange, and upwards of 300 booths, for the sale of goods. Warsaw contains a university and several convents and hospitals. Its population is as grotesque as its architecture, and resembles a perpetual masquerade; long-bearded Jews; monks in the garb of every order; veiled and shrouded nuns, self secluded and apart; bebies of young Polessees, in silk mantles of the brightest colors, promenading the broad squares; the venerably ancient Polish noble, with mustaches, caftan, girdle, sabre, and red or yellow boots; the new generation equipped to the highest pitch of Parisian dandyism, with Turks, Greeks, Russians, Italians, Germans, and Frenchmen, in an ever-changing throng. Warsaw has a considerable commerce by the *Vistula*, and manufactures of cloth, linen, carpets, stockings, carriages, and harnesses. The population is about 150,000, including the garrison and 30,000 Jews. The other towns of Poland are small. *Kalisch* is a handsome and regularly built city, with manufactures of cloth and linen; population, 10,000. *Lublin* has a population of 12,000 souls.

6. *Agriculture.* Poland is a country of great agricultural resources. The productions are

corn, cattle, hemp, and flax. The greater part of the territory is extremely well adapted to the rearing of sheep. The plains annually overflowed by the Vistula, afford perhaps the richest pasturage in Europe. Notwithstanding these natural advantages, the agricultural industry of the country has been greatly reduced by political oppression. About half the territory is cultivated ; one fourth of the remainder is occupied by forests, and the remainder by marshes and waste lands.

7. *Commerce.* The principal trade is in the exportation of corn, which is conveyed down the Vistula to Dantzic, in large flat boats. The exportation is considerable ; the exporters are Jews, who are the only capitalists in the country.

8. *Population, Army, &c.* The population is about 4,100,000. The Polish army previous to the insurrection in 1830, was fixed at 50,000 men, and every Pole, without distinction of birth or religion, was obliged to serve as a soldier, from the age of 20 to 30, although members of the liberal profession, elder sons of families, and state officers, were exempted, and any individual might serve by substitute.

9. *Inhabitants.* The Poles have an Asiatic cast of countenance, derived, probably, from the Tartars. They are tall, and well formed, with good features, and often with fair complexions. The inhabitants may be divided into Poles, Jews, Germans, and Russians ; and, again, into four classes ; nobles, clergy, burghers, and peasants. The nobles have the titles of Prince, Count, and Baron. All, however, are equal by birth, and the only distinction is that of office. The nobles are exceedingly numerous, and generally poor ; of these there are 60,000 families. The peasants are, in effect, slaves, though their condition is becoming better, and many have been manumitted. They have a conditional estate in the land they till ; and generally render in return to the landlord, three days' labor in the week. Dwarfs are said to be more common in Poland than in any other country.

10. *Dress.* The dress is national ; though in Poland may be seen the costumes of various nations. The heads of the men are shaven, all but a circle on the crown, and all wear mustaches. A vest is worn, reaching to the middle of the leg, a gown lined with fur, and girded with a sash, and wide breeches, of a piece with the stockings. The shirts are without collars or wristbands, and neither stock nor neckcloth is worn. Boots are worn with thin soles. This is the dress of the gentry, and the female costume does not essentially vary from it. The men wear fur caps, and a hanger is indispensable to a gentleman. The Jews wear a tall cap of fur over one of velvet, and a long tunic of black silk, girded with a wide sash. All suffer their beards to grow. The peasants are often clothed but with rags. They wear in winter a coat of sheep-skin, with the fur inward ; and in summer a coarse cloth. Their boots are frequently but the rind of trees, wrapped about their legs, with a thicker piece of bark for the sole.

11. *Manner of Building.* The Polish towns are generally built around a square, with a town-house in the middle. The dwellings of the peasants are mean huts of wood, of one story, and with a single room for men and cattle. There is a stove in every house.

12. *Food and Drink.* The tables of the wealthy are well supplied, but the food of the poor is scanty and coarse. The peasants live mostly upon black rye bread, potatoes, cabbage, and peas. They eat little animal food, though they use much salt. *Schnaps*, or a coarse kind of whisky, is taken by the peasants, when they can obtain it, to excess.

13. *Diseases.* The small-pox continues to commit occasional ravages, and syphilis is common. It is the bane of the country, and of 100 recruits 80 have been known to have it. The *plica polonica* is a peculiar and national disease. It is occasioned by humors, which seem to have no other outlet but the hair. It is often fatal to cut off the hair during the disease, which, if suffered to run, exhausts itself in a few months, when the hair is cut off and a new growth comes. It becomes, during the disease, matted and endued with life, and will bleed when cut off. The disease is offensive but not dangerous. It is, however, sometimes fatal to the domestic animals, that have long hair.

14. *Traveling.* Hardship and privation must be suffered by the traveler in Poland. The inns are kept by the Jews, and they contain but one room ; and this of such a kind, that a lodging is often preferred in the stable. Neither beds nor provision are always to be had, and the traveler generally carries both. The usual traveling-carriage is made of wicker work, in the form of a cradle.

15. *Character, Manners, and Customs.* The Poles are distinguished for bravery, military spirit, and impatience of control. They are honorable, hospitable, courteous, and lively, but not without licentiousness. The rich nobles live in much state, and entertain their friends, and

strangers, in a princely manner. The ladies are celebrated for attractions. The peasants are poor, ignorant, and fanatical. They are stupid from the effects of servitude, and they have little conception of cleanliness. The Jews are the general traders, and the political freedom they enjoy in Poland, has developed better traits in their character, as well as physiognomy, than are found in countries where they are much oppressed. They have, however, a tendency towards extortion, and, like the peasants, they are offensively filthy.

16. *Amusements.* There are many manly sports in use, as leaping, hunting, &c. ; bear-baiting and bull-fighting are also common. Dancing is a favorite amusement with the higher classes.

17. *State of the Arts, Science, and Literature.* There are good poets and historians, who have written in the Polish language, and Copernicus was a native of Poland. Literature continues to be considerably cultivated ; and English works have grown into favor, above the French, which were formerly the most popular.

18. *Religion.* The Catholic is the established religion, but all others are tolerated, and the Greek church is organized. There is a considerable number of recluses.

19. *Education.* Since 1815 the lower classes have received some attention in point of education ; but they are still very ignorant. Before that time, all education was monopolized by the nobles. There are now few schools in villages, and those in towns are not very efficient.

20. *Government.* Poland is a dependency of Russia, the emperor of which is king of Poland. Previous to the insurrection of 1830, there was a diet assembled once in two years, consisting of a Senate and Chamber of Deputies ; but even this shadow of liberty has been taken away, and the government of Poland is now despotic in form, as well as in substance.



Partition of Poland by the kings of Russia, Austria, and Prussia.

hereditary princes was established, which continued till 1370. Lithuania was united to Poland



Polish Exiles leaving their country in 1831.

An imperial Russian ukase incorporated the kingdom of Poland with Russia, in 1832, and the administration is now conducted by a Russian governor-general.

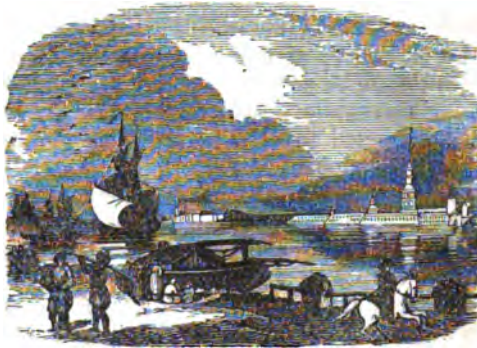
21. *History.* Poland has been, for a thousand years, remarkable only for its misfortunes. The ancient inhabitants were a tribe of the Sarmatians. In the great eruption of the Goths and Huns ; in a struggle of two centuries against the Germans ; and in their own ceaseless intestine factions, they became impressed with a character singularly composed of passive and active features ; the submission of the slave and the pride of the noble, the most abject sentiment and patriotic spirit. Poland made a slow progress toward civilization. It was governed by elective dukes for two or three centuries, when, in 840, the first dynasty of

in 1386. Kings of different houses possessed the throne amid a period of aristocratical anarchy for some centuries. Poland was conquered by the sovereigns of Russia, Austria, and Prussia, and was subjected to three partitions, in 1772, 1793, and 1795. At the last partition the king was deposed, the country blotted from the list of nations, and the whole territory divided between the three powers above mentioned. Napoleon wrested a portion of this country from the conquerors, and erected it into a State, with the title of the Grand Duchy of Warsaw, in 1807, but this government was overthrown at his downfall. The Prussian and Austrian divisions of Poland were

attached as provinces to those monarchies, and the Russian division was formed into a kingdom as a part of the Russian Empire.

The Poles remained in quiet submission to the Russian government till 1830, when, on the 29th of November, Warsaw rose in insurrection, and the whole kingdom was speedily in revolt. The hope of assistance from some of the free governments of Europe induced them to spurn at all attempts on the part of the Russian emperor to bring them to submission, and a bloody struggle, with the armies of the autocrat, followed. The Poles at first obtained some signal advantages, but no foreign power stirred in their behalf, the Russians poured in fresh armies, and, in a year from the breaking out of the revolt, Poland was overpowered by numbers and forced again to submit. The Russian despotism is now fully reëstablished, and unhappy Poland has felt its bitterest persecutions. Many of the Poles were murdered in cold blood by the victors, and others, with their families, were *dragged* in chains, or driven with the lash, to the distant wilds of Siberia.

CHAPTER LVII. RUSSIAN EMPIRE.



St. Petersburg.

1. *Boundaries and Extent.* This country is bounded north by the Frozen Ocean, east by Asiatic Russia, south by the Caspian Sea, Caucasus, Sea of Azof, the Black Sea, and the Danube, and west by Moldavia, Austria, Poland, Prussia, the Baltic, Finland, and Lapland. It extends from 40° to 70° N. latitude, and from 21° to 68° E. longitude, and contains about 1,900,000 square miles.*

2. *Mountains.* The *Ural Mountains* form the boundary between Europe and Asia. They consist of a chain 1,200 miles in length, extending from the Frozen Ocean, south, nearly to the Caspian Sea. The *Finnic Mountains* are a continuation of the Scandinavian range, and extend some distance into Russia between the White Sea and the Gulf of Bothnia. The *Alaunian Mountains* are a series of gentle elevations southeast of the Gulf of Finland. In the south are the *Mountains of Taurida*.

3. *Rivers.* Russia is watered by a great number of rivers, comprising the largest in Europe. The *Ural* rises on the eastern declivity of the Uralian mountains, separates Europe from Asia, and empties its waters, after a course of 1,300 miles, into the Caspian Sea. The *Volga*, the largest river of Europe, rises in the government of Tver, and, passing in an easterly and southerly direction by Tver, Jaroslav, Kazan, and Astrachan, it flows into the Caspian Sea, by 70 mouths. Its principal tributaries are the *Oka* from the west, and the *Kama*, a full, deep stream, from the east; its current is gentle and smooth, and it is navigated by more than 5,000 boats, while its valuable sturgeon fisheries employ even a greater number of fishing craft. Length of its course, 2,500 miles. The *Terek* and *Kuma* are considerable streams rising in the Caucasian Mountains, and flowing into the Caspian Sea.

* This statement does not include Poland, Finland, and Russian Lapland, which have been separately described, and which carry the area of European Russia to 2,270,000 square miles. Besides the European territories, the Russian Empire comprises vast tracts of Asia, including the whole of the northern part of the continent, and the coun-

try to the west of the Caspian Sea, and south of Caucasus. The northwestern part of America also belongs to this power. The whole empire has an area of over 8,000,000 square miles, or one seventh of the habitable globe, with a population of about 67,000,000 inhabitants.

The *Don* rises in the government of Tula, and receives a number of large tributaries ; it passes by Azof, into the sea of that name, after a course of 850 miles. The *Dnieper*, one of the largest rivers in Europe, and a fine navigable stream, rises in the government of Smolensk, and has a course of nearly 1,000 miles, passing by Smolensk, Kiev, below which the navigation is interrupted by falls, Cherson, and Oczacow, into the Black Sea. The *Dniester*, rising in the Carpathian mountains of Galicia, also runs into the Black Sea.

The *Vistula* passes through Poland into Prussia, and the *Niemen* also enters the Prussian territory. The *Duna*, or *Southern Dwina*, rising near the sources of the Volga, flows north into the Gulf of Livonia. The *Neva*, the outlet of Lake Ladoga, is more remarkable for the volume of its waters, than the length of its course ; it is a broad, full, deep river, and sometimes does great mischief by its inundations. The *Petchora*, the *Dwina*, and the *Onega*, are the principal streams, whose waters find their way into the Arctic Ocean.

4. *Lakes*. This country abounds in lakes. The *Lake of Ladoga* lies near the Gulf of Finland ; it is 120 miles long, and 65 broad. It abounds in fish, and particularly in seals, and is connected with the sea by a canal. *Lake Onega*, lies between this lake and the White Sea ; it is 150 miles long. The other lakes are smaller.

5. *Islands*. *Nova Zembla* consists of two large islands in the Arctic Ocean, presenting a dreary and sterile appearance, and covered with snow and ice the greater part of the year. The soil produces some shrubs and moss ; the islands are uninhabited by man, but they abound in reindeer, ermine, white bears, seals, and fish, and are much resorted to by fishermen and hunters. To the northwest is the rocky and mountainous group of *Spitzbergen*, where an almost perpetual winter reigns. The white bear, whales, seals, &c., abound here ; a company of Archangel merchants have attempted to establish a fishing and hunting post here, on the most northerly inhabited spot on the globe.

6. *Seas and Gulfs*. The *White Sea* in the north communicates with the Frozen Ocean. It is sufficiently deep for navigation and is free from ice from July till winter. The *Gulf of Finland* is an arm of the Baltic, extending easterly between Russia and Finland. The *Sea of Azof*, in the south, is an arm of the Black Sea.

7. *Climate*. The *White Sea*, and the ocean which washes the northern coast, are covered with ice from September to June, and the rivers in this quarter are frozen for a still longer period. In the morasses and lakes, the frost seldom disappears at all, and the sun's heat does not penetrate a span into the marshy soil. During the brief and cheerless summer the atmosphere is loaded with fogs. The sun at this season appears like an enormous red balloon, hanging motionless in the air. The summer is damp, hot, and oppressive. At Petersburg, the temperature is milder, but the *Neva* is frozen from November till March. In the south, the climate is delightful, and vegetation is flourishing. In the plains, there is little rain in summer, and the streams dry up.

8. *Soil*. The country watered by the Volga is tolerably fertile, but the richest districts are those upon the *Don* and *Dnieper*. In Livonia the soil is excellent. In the north, the soil is unfit for tillage.

9. *Natural Productions*. In the north, firs, junipers, and mosses, are all the productions of the soil. The central parts abound in forests of linden, cherry, elm, birch, willow, poplar, alder, aspen, maple, pine, cedar, and cypress. Upon the shores of the Black Sea grow the turpentine tree, the balm and Byzantine poplar. Walnut trees are plentiful in the Crimea.

10. *Minerals*. The European part of Russia is not rich in minerals. Iron and marble are found in some parts, granite is abundant, and salt occurs in large quantities.

11. *Animals*. In the north are found most of the animals described in the adjoining countries. In all the other parts sheep are abundant. Wild horses are found in the steppes of the *Don*.

12. *Face of the Country*. The whole region is for the most part a champaign country, with very few mountainous tracts. It abounds in those great level plains, called *steppes*, sometimes resembling deserts, and at other times savannas, waving with luxuriant grass.

13. *Divisions*. European Russia is divided into 50 governments or provinces, exclusive of the territory of the Cossacks of the *Don*, which forms a sort of military republic ; the grand duchy of Finland, which has a distinct administration, and the kingdom of Poland. The geographical sections are, the Baltic provinces, comprising 4 governments, and Finland ; Great Russia, including 19 governments ; Little Russia, comprising 4 governments ; Southern Russia,

containing 3 governments, and the province of Bessarabia ; Western Russia, composed of 7 governments and 1 province ; and Eastern Russia, comprising 8 governments.*

14. *Towns.* *St. Petersburg*, the metropolis of the Russian empire, is situated at the eastern extremity of the Gulf of Finland, and is built partly upon the mainland, and partly upon some small islands near the mouth of the Neva ; one of its entrances is adorned with a magnificent triumphal arch. The foundation of the city is extremely marshy, and so low as to



View of the Palace.



Entrance to one of the Palaces.

subject the city to frequent inundations from the waters of the gulf.† It was founded in 1703, by Peter the Great, the spot being then occupied only by a few fishermen's huts. The streets of the city are from 70 to 150 feet wide, and are mostly intersected by spacious canals, em-

banked by parapets of hewn stone, and spanned at convenient distances by arched bridges of magnificent construction. The quays along the Neva are remarkably magnificent. The English Quay is nearly 3 miles in length. The city is one of the most beautiful and magnificent in the world. The imperial residence ; the Hermitage, another imperial palace, of a beautiful construction, containing a gallery of paintings, and a cabinet of gems, ranking among the richest known ; the numerous sumptuous palaces of the imperial family ; the magnificent hotels of the nobles, and the great number of public edifices, built on a large scale, of rich materials, and in a style of great elegance,



The English Quay.

• **GOVERNMENTS : —**

Baltic Provinces.

St. Petersburg

Esthonia,

Livonia,

Courland.

Great Russia.

Moscow,

Smolensko,

Pskof,

Olonez,

Novogorod,

Archangel,

Vologda,

Kostroma,

Nizni-Novogorod,

Vladimir,

Tula,

Kaluga,

Tver,

Jaroslav,

Kursk,

Orel,

Riassan,

Tambof,

Voronetz.

Little Russia.

Kiev,

Slobodak-Ukraine,

Tschernigoff,

Pultowa.

Southern Russia.

Cherson,

Catherinoslav,

Taurida,

Bessarabia, Province.

Western Russia.

Wilna,

Grodno,

Witepsk,

Mohilev,

Minsk,

Volhynia,

Podolia,

Bialystok, Province.

Eastern Russia.

Kazan,

Viatska,

Perm,

Simbirak,

Penza,

Astrachan,

Saratov,

Oremsburg.

† The most remarkable of these inundations occurred in November, 1824. The Neva rose to an unusual height, overflowed the city and swept away houses, furniture, and goods, doing immense damage. The destruction of life

was enormous, and whole villages near the city were totally submerged. At Cronstadt, the imperial fleet suffered great injury, and a ship of 100 guns was left in the middle of one of the principal streets.

render it a city of palaces. The houses are usually of brick, covered with stucco, and present a white and dazzling appearance at a distance. The views upon the borders of the Neva are of an extremely grand and lively description; the river is deep, rapid, and as transparent as crystal; and its banks are lined on each side with a continued range of noble buildings.

One of the chief subjects worthy of attention here, is the equestrian statue of Peter the Great, in bronze, erected by Catherine the Second. The Kazan church, built of marble, is a work of stupendous dimensions; but that of St Isaac, lately erected, surpasses it in magnificence. The Admiralty is a spacious and magnificent edifice, and the spire being covered with



The Admiralty.



The Exchange.

gilding, is seen from all parts of the city. The Exchange is beautifully situated with a quay in

front; it is surrounded with pillars, and decorated with marble statues. During the winter, no part of the city is more crowded than the Neva. Inclosed places are allotted to the skaters; and sledge-races, and various other amusements are generally practised. The population of St. Petersburg amounts to 500,000. The literary institutions, and learned societies of St. Petersburg, are numerous. The university, the cabinet of natural history, the imperial library of 450,000 volumes, those of the academy of sciences, of the university, &c., the magnificent botanical garden, &c., must not be passed



Palace of Petrowski, St. Petersburg.

over in silence.

Cronstadt, on an island in the Gulf of Finland, about 20 miles from Petersburg, is the port of the capital, and the chief naval station of the empire. It is remarkable for its vast works, fortifications, docks, arsenals, barracks, &c. Population, 55,000.

Moscow, the former capital, stands on the river Moskva, 487 miles southeast of St. Petersburg. Before the French invasion, it was the largest city in Europe, being nearly 20 miles in circumference. The Kremlin is a superb structure, or rather a motly mass of gaudy buildings, comprehending the imperial palace and chapel, the public offices, the cathedral,



Burning of Moscow in 1812.

and other churches, and the arsenal. At the French invasion in 1812, the city was set on fire, and two thirds of it destroyed. It is now mostly rebuilt. The streets are, in general, broad; and some of them are paved; others, particularly those in the suburbs, are floored with trunks of trees, or boarded with planks. Wretched hovels are blended with large palaces; some parts of the city have the appearance of a sequestered desert, and others that of a populous town. One of the curiosities of this place is the great bell, which is said to be the largest in the world; its circumference is 64 feet, and its height 19 feet. In the cathedral the Russian emperors are crowned. Moscow contains a university with a fine library, and many literary institutions; the anatomical museum here comprises 50,000 preparations. It is the residence of the oldest and wealthiest Russian families, and the operations of its merchants extend from London and Paris to the coast of North America and the capital of China. Population, in 1843, 375,000.

Riga, on the Duna, near its mouth, is the capital of Livonia; it is one of the principal fortresses of the empire, and ranks among the principal commercial cities of Europe. Here is a bridge of boats over the Duna, remarkable for its length. The inhabitants are chiefly Germans, or of German origin. Population, 72,000. *Dorpat*, 9,000, in the neighborhood, contains a university, with a celebrated observatory.

Tula is one of the principal manufacturing cities of the empire; more than 7,000 workmen are employed in the manufacture of arms for the government, and philosophical instruments are also made here. The vast arsenal contains upward of 100,000 stand of arms. Population, 52,000. *Kaluga*, upon the Oka, has a great number of manufactories, and carries on an active trade. It is a large, but meanly-built city, with 36,000 inhabitants. *Orel* is a flourishing city, and is the great mart of the corn-trade for the interior of Russia. Population, 30,000. *Jaroslav*, pleasantly situated upon the Volga, is one of the great workshops of Russia; table-linen, paper, and silk are the chief productions of its industry. Here is a scientific school with a rich library, and one of the most important theological seminaries of the empire. Population, 33,000.

Archangel, upon the Dwina, has a fine harbor, which, however, is closed 9 months in the year by ice. Previously to the building of St. Petersburg, it was the chief commercial port of Russia, and, although it has since declined, its inhabitants still prosecute the fisheries with activity, and carry on an extensive commerce. Population, 22,000.

Tver, with 22,000 inhabitants, situated upon the Volga, at the junction of one of the canals connecting that river with the Neva, is the centre of the commercial relations between Moscow and St. Petersburg. It is one of the handsomest towns in Russia, containing a magnificent imperial palace, a noble cathedral, town-house, &c., and adorned with superb quays along the Volga.

Smolensk, 15,000 inhabitants, and *Novogorod-Veliki*, or Great Novogorod, 14,000, are chiefly interesting for their historical importance. Smolensk once contained a great population, and Novogorod, formerly a member of the Hanseatic league, and the great mart of the commerce between Asia and the north of Europe, ruled over a great part of Russia, and was a rich republic and populous city. "Who can stand against God and Novogorod?" became a proverb. *Nishni-Novogorod*, on the Volga, with 28,000 inhabitants, is celebrated for its great fair, the largest in Europe; it is attended by from 120,000 to 150,000 persons, who transact business to the amount of above 20,000,000 dollars; in its vast and beautiful bazars meet the traders of the most distant parts of Europe and Asia.

Kiev, pleasantly situated upon several hills on the Dnieper, is an ancient town, and was formerly one of the sacred cities of Russia. It contains a splendid cathedral, an imperial palace, a celebrated university, and a famous monastery, in the catacombs of which are preserved, in a dried state, the bodies of 110 martyrs; thousands of pilgrims visit these relics yearly, and the great fair of Kiev attracts annually 30,000 persons. Population, 48,000. *Odessa*, one of the most flourishing cities of Europe, is the chief commercial mart upon the Black Sea, and the outlet of the exports of Southern Russia. It is handsomely built, with regular and spacious streets, and handsome public squares and walks, and contains many elegant buildings, public and private. The dry and sterile soil of the neighborhood has been converted into a fertile garden, by the increase of the city. Population, 80,000. *Cherson*, formerly the most important town in this section, is unhealthy, and has declined since the transfer of its commerce to Odessa, and the removal of its dock-yard. Population, 30,000. Other important places in Southern Russia are *Bender*, 10,000 inhabitants, and *Ismail*, 24,000, in Bessarabia, distinguished for their fortifications, and *Akerman*, 25,000, in the same province, also a fortified town,

with extensive salt-works ; *Nikolaiev*, near Odessa, a small town, but important as the principal Russian naval station on the Black Sea ; and *New Tcherkask*, 18,000 inhabitants, capital of the Cossacks of the Don.

Wilna is the principal city of Western Russia, and was the capital of the ancient duchy of Lithuania. It contains many remarkable edifices, among which are the cathedral, numerous churches, and the hotels of many Polish nobles. About half of the population, 56,000, are Jews, who carry on an extensive inland traffic. *Mohilev*, 21,000 inhabitants ; *Witepsk*, 15,000 ; and *Minsk*, 15,000, capitals of governments of the same names, are the other most considerable towns of Western Russia.

Kazan, on the Volga, a handsomely built and strongly fortified city, is the mart of the commerce between Siberia and European Russia, and the seat of extensive manufactures of cloths, leather, soap, and iron ware. It was once the capital of a Tartar kingdom, and is the most important Tartar city of Russia. Its university, theological academy, observatory, library, botanical garden, &c., give it also a certain literary importance. Population, 48,000. *Saratov*, upon the Volga, is a flourishing town, which owes its rapid increase to its extensive trade, and its manufacturing prosperity. Population, 35,000.

Astrachan, with 48,000 inhabitants, is built upon one of the islands in the mouth of the Volga, and is the most frequented port on the Caspian Sea. Its numerous churches, its pretty orchards and vineyards, its extensive suburbs, and its Kremlin, or citadel, give it an agreeable appearance at a distance, but the houses are chiefly of wood, and the streets are irregular, muddy, and badly paved. It is the chief Russian naval station on the Caspian Sea, and its central position, which affords it a ready communication with the most remote parts of the empire, and with the richest regions of Asia, renders it the emporium of Russian commerce with India, Bucharia, and Persia. Three bazars or khans, in different parts of the city, are appropriated respectively to the Russian, Hindoo, and other Asiatic merchants. Other considerable towns in Eastern Russia are *Perm*, 10,000 inhabitants, important for the rich mines of copper worked in its neighborhood ; *Ekaterinburg*, 11,000, the centre of a rich gold district, containing large cannon founderies, and manufactories of cutlery and other iron ware ; and *Uralsk*, 12,000, capital city of the Cossacks of the Ural, with important fisheries.

In Great Russia, besides the towns already described, are *Kursk*, a commercial town with 23,000 inhabitants, near which is a miraculous image of the Virgin, which attracts numerous pilgrims ; *Vologda*, 13,000, which its central position between St. Petersburg, Moscow, Archangel, and Kazan, and the canals and navigable rivers connected with it, render the great mart of the inland trade of Northern Russia and Siberia ; *Voronege*, 26,000, and *Riazan*, 19,000 inhabitants, flourishing commercial and manufacturing towns ; *Charkov*, 13,000, noted for its literary institutions ; and *Pultava*, 10,000, for the victory gained there by Peter the First, over Charles the Twelfth, of Sweden.

15. *Canals and Railroad.* The system of canalisation, favored by numerous navigable rivers and lakes, and by the seas, which border Russia on 3 sides, has been carried to a great extent. It was projected by Peter the Great, who, in founding St. Petersburg, designed to make it the commercial emporium of his vast empire. Several canals of no great length unite the waters of the Volga with Lake Ladoga, and thus connect the Baltic and the Caspian Sea. The *Ladoga Canal*, 66 miles, unites them with the Neva, and thus enables boats to avoid the dangerous navigation of the lake. Two canals unite the Northern Dwina with different branches of the Volga, and connect the White Sea with the Caspian. The *Oginski Canal*, 36 miles long, connects the Dnieper with the Niemen, and affords navigation from the Baltic to the Black Sea. The *Canal of Peter the First*, connects the Don with the Volga, and is 100 miles in length ; the Oka is also united with the upper part of the Don ; these canals afford a double communication between the Black and Caspian seas. Another extensive system of canals connects the Vistula with the Niemen and the Duna, and the latter with the Neva. There is one railroad in Russia, extending from St. Petersburg to Paulovski, 20 miles, which it is proposed to continue to Moscow, 450 miles further.

16. *Agriculture.* Russia raises much more corn than she consumes ; fruits and wine are produced in abundance ; flax and hemp are staple productions. Mulberry trees have been planted to a great extent, and the raising of cattle, horses, sheep, bees, and silkworms, occupies many of the inhabitants. Poland rears many cattle, and raises much corn, but the rich plains of the Vistula are blasted by Russian tyranny.

17. *Manufactures.* Russia has for a long time possessed manufactures of leather, duck,

cordage, cutlery, felt, candles, and soap. But during the last 10 years great progress has been made in all the branches of manufacturing industry, and the more delicate productions of the loom and the furnace are made in great perfection. In addition to the articles above mentioned, silks, fine broadcloths, glass, porcelain paper, jewelry, and cotton, are among the principal. The governments of Moscow, Vladimir, Nishni-Novogorod, Tambov, Kaluga, and Olonetz, are the chief manufacturing districts. The cotton manufacture in particular, has of late extended itself with great rapidity, owing principally to the substitution of free and well-paid workmen for slaves; in a single village in Vladimir there are 15,600 looms, employing 24,300 laborers.

18. *Commerce.* The inland commerce of Russia is not impeded by tolls nor staples, and is facilitated by navigable rivers, canals, and lakes, and by the snow in winter. Great fairs are held in different places. The foreign inland trade is with China, Persia, Bucharia, the Ottoman Empire, Austria, and Prussia. The maritime commerce is chiefly in the hands of the English, the foreign inland trade is carried on by Armenians, Jews, and Bucharians. The American Company has factories at Kazan, Irkutsk, Kamschatka, &c., and settlements in America. The Steam Navigation Company has been formed with the design of introducing steam vessels upon the Volga, the Caspian, and the Kama, and the Russian Company to extend the navigation upon the Baltic and Black seas, and the great rivers of the interior. The foreign commerce of Russia has doubled within 25 years.

19. *Fisheries.* The seal and sturgeon fisheries of the Ural, the Volga, and the Caspian and Black seas, are extensive and highly productive. Upward of 10,000 fishing-boats are employed on the Volga, and isinglass, caviare, and oil are made. Salted and smoked mackerel form an important article of the commerce of the Crimea. The Cossacks repair to the Ural to prosecute the sturgeon fishery, in great numbers. Thousands appear on the ice in sledges, armed with spears, poles, and other instruments. As soon as the leader sets forward, the fishers, who have been drawn up in regular ranks, dash after him; the ice is cut, the spears cast, the ice covered with fish, which the fishmongers, assembled from all parts of the empire, carry off, in all directions, in a frozen state.

20. *Religion.* No distinction is made in favor of any religious sect in Russia. The great majority of the inhabitants belong to the Greek church. In the Polish provinces the inhabitants are Catholic or United Greeks. There are many Lutherans in Finland and Esthonia. The Calmucs are Mahometans. The government of the Greek church is administered by the Holy Synod, or college of bishops and secular clergy; under the Synod are the 4 metropolitans of Moscow, Petersburg, Kazan, and Kiev, the archbishops, &c., and 560 convents. The service consists chiefly in outward forms; preaching and catechizing being little regarded. The clergy are generally little more enlightened than those whom they aspire to instruct. Every house has a painting of a saint, or of the Virgin, before which the inmates offer prayers, and perform many ceremonies. Most of the clergy are permitted to marry once. There are many fasts, and festivals are kept with great rejoicings; many pagan superstitions are still cherished.

Thus doves are not eaten, as they are considered sanctified, or emblematic of what is holy. The marriages of the nobility are solemnized nearly as in other parts of Europe, but the courtship of the peasants is singular. The suitor applies to the mother, saying, "Produce your merchandise, we have money for it." Should the *bargain* be concluded, the bride at the wedding is crowned with a chaplet of wormwood, not an inapt emblem for the wife of a Russian boor. Hops are thrown over her head, with the wish that she may prove as fruitful as the plant. Second marriages are tolerated; the third are considered scandalous, and the fourth absolutely unlawful. The dead are buried with a paper in the hand, as a passport. It is signed by the bishop or other dignitaries.

21. *Government.* The government is an unlimited monarchy; all power emanates from the emperor, who is considered to derive his authority from God. His title is Samoderjetz or Autocrat of all the Russias; he is at once the supreme head of the state and of the church. There are, however, some differences in the administration of different parts of the empire; thus the kingdom of Poland, and the grand-duchy of Finland, have distinct constitutions; the Cossacks of the Don, and those of the Black Sea, form a sort of military republics, &c.

22. *Army and Navy.* The army of Russia is estimated to amount to about 800,000 men, exclusive of the military colonists. The military colonies are a peculiar institution of this country; in these, the peasants or boors, who belong to the crown, are subjected to a military

government, and educated as soldiers. The navy consists of 56 ships of the line, 40 frigates, and 204 smaller vessels, and 25 floating batteries.

23. *Inhabitants.* The population of Russia is composed of a great variety of different people, who have nothing in common, but the government. The *Sclavonic* race comprises the greatest part of the inhabitants, including the Russians, the Cossacks, and the Poles. The latter form the majority of the population of the western governments, conquered from Poland, and of the kingdom of Poland. The Cossacks occupy the southern provinces on the Don and the Black Sea. The *Finnic* race comprises the Finns, Esthonians, Laplanders, and other tribes scattered over the country, from the Tornea to the Ural Mountains. The *Tartars* or *Turkish* race are spread over the plains from the Dniester to the Caucasus, comprising the inhabitants of the former kingdoms of Kazan and Astrachan, and various tribes mostly under their own government, without agriculture or firearms, and often preserving their nomadic habits. To the *Mongol* race belong the Calmucks, in the southeastern governments. The *Samoides* compose numerous small tribes, wandering through the vast wilderness on the northeastern coast. Beside these there is a great number of *German* colonists, *Swedes* in Finland, *Jews*, *Armenians*, *Gypsies*, &c. In the whole empire there are no less than 80 tribes, differing in language, religion, and manners, from the lowest state of barbarism to the highest degree of European civilization. The population of European Russia is divided into four classes; the nobility, citizens, free holders, crown peasants, and boors or serfs. The boors are the property of the crown or of individuals, and are in a state of abject poverty and ignorance. The laws, however, afford them some protection against the caprice of their owners, and they are sometimes emancipated or permitted to purchase their freedom. This servile class comprises a third of the population, amounting to about 21,000,000. Those classed above as citizens are the inhabitants of cities, composed of several distinct orders, as the members of the guilds, or capitalists, with a certain income, artisans, notables (artists, bankers, and learned men), &c. The noble families comprise about 750,000 individuals, enjoying certain exemptions and privileges.

24. *Dress.* The nobles dress chiefly after the English or French fashions; but the burghers, merchants, and peasants wear the national dress, of the Asiatic form. In winter all classes are wrapped in sheep-skins, or furs. The common dress of the peasants is a hat or cap, with a high crown, a coarse robe reaching to the knee, and girded with a sash, in which the wearer carries his purse and often his hatchet; a woolen cloth wrapped round the leg instead of stockings, and sandals of pliant bark. The higher ranks wear in winter pelisses of fur, and boots of the same. The dress of the ladies is nearly in the English fashion. The women of the more numerous class wear a *saraphan*, or long vest without sleeves, tight around the chest, but flowing over the hips, and having a close row of buttons on the facing in front.

25. *Language.* The Russian language is a branch of the Sclavonic, rich, expressive, and full of imagery. The French, however, is the language of courtly society; and other European languages are much used; all which the Russians have a great facility of acquiring.

26. *Manner of Building.* The houses of the peasantry are similar in the greater part of Russia. They are made of logs, laid one upon the other. They have but one room for household purposes, and this in summer and winter is always occupied with a stove, constantly kept hot. The villages have a dismal look, with the ends only of the houses to the street. After Petersburg, there are few Russian cities well built; and Moscow is imposing principally from the great variety of oriental forms of architecture.

27. *Food.* The peasantry can seldom indulge in the luxuries of the table; though the rich live sumptuously. The general food of the lower classes is black rye bread, potatoes, salted fish, garlic, mushrooms, and cucumbers, in great quantities. The common drink is *quass*, a fermented liquor, made by mixing flour with water, and letting it stand till the acetous fermentation takes place. It tastes like vinegar and water. Mead is also a common drink, and whisky and brandy are consumed in large quantities by the lower classes. Intemperance is not common with the nobility, but with the other class it is as universal as the means. The Cossacks use much brandy, and they have excellent wines of domestic growth. The Calmucks have *koumiss*, an ardent spirit, like weak brandy, distilled from the milk of mares. Tobacco is not generally used in Russia, and, when taken, it is chiefly in the form of snuff. Smoking, however, is not rare, and ladies may sometimes be seen with a cigar.

28. *Diseases.* The diseases of Russia are those common in almost all European countries. On the Asiatic side fevers are common, and the plague frequently exists. The small-pox commits more ravages than it is permitted to make in other European countries.

29. Traveling. All the obstructions to traveling, that exist, separately in other countries, seem to be concentrated in Russia.



Traveling in Russia.

The police, the extortion of postmasters, the inns, and the roads, are all at variance with a traveler's comfort. The inns have, in general, no better accommodations than the hut of a Laplander, and the Laplander is a far more civil and friendly host than the Russian. The traveler must not only carry his bed, but his food and cooking utensils; and, with all his resistance, he will be obliged at every post to pay more than the postmaster is entitled to; as this functionary generally adapts his charges to the impatience of travelers to proceed. The roads are exceedingly rough, except in winter, when all Russia seems to be traveling to and from the capital in sledges.

The post-horses are harnessed to clumsy carriages, in the shape of landaus, five or six abreast, with a single horse for a leader, and sometimes another in the shafts. The sledges are of various forms and qualities. Many are gaudily ornamented. The Kibitki is a rude carriage, without springs except to the seats, and in these the courtiers generally ride. It is shaped like a boat. The Droski is a carriage represented in the preceding cut, and the passenger is scarcely two feet from the ground. In some of these carriages, he sits astride as on a saddle, and the motion is so great in going rapidly, that a novice holds by the sash of the coachman, who sits before. Sledge races are common in the cities, and the general pace at which the sledges move is very swift. They are driven nearly at full speed, while the passengers sit or recline, wrapped completely in furs. In severe winters, many travelers perish in the roads. In 1789, 14,000 were frozen on the road from St. Petersburg to Moscow, and it is common to see people who have lost an ear or a limb, by exposure to cold.

30. Character, Manners, and Customs. The character of a people reflects the nature of the government, for man is the creature of circumstances. In Russia, property, liberty, and life, are held at the will of the autocrat, and the nobles have nearly the same delegated power over their serfs. This state of government has an unfavorable influence on the character of the monarch, the noble, and the peasant, though the latter it the most degrades. The monarchs of Russia have almost always been cruel and sanguinary, the nobles sensual, capricious, and indolent, and the peasants degraded and brutal. It must be admitted, however, that the advance towards a better state of society has, of late years, been rapid, and the change has been nowhere so apparent as in the nobility. It must doubtless be communicated also to the peasantry. If the state of morals at St. Petersburg be not unexceptionable, that of decorum and refinement may compare with the majority of European societies. Intemperance, which used to be characteristic of a Russian nobleman, is now the vice only of his slaves. But the Russian empire is too unwieldy to receive the same advancement in knowledge and refinement with smaller states. In describing the Russians we must describe the two great classes, the nobility and the peasants, though many traits of character run through all. All are cheerful, social, and luxurious, fond of novelty, and quick in apprehension.

The moral aspect of the higher classes has been much changed for the better, but it must be many years before the Russians can acquire the moral elevation, that distinguishes Germany and England. The higher classes are animated and fond of amusement, but in a great degree inaccessible to the high motives of principle or honor. They stand on the brink of barbarism, and have quitted the virtues of that state too lately to have acquired those of refinement. Their life is one of pomp and show, rather than one devoted to knowledge and the gentle emotions, which make the charm of a refined stage of society. They retain vast households of domestic serfs; 500 of these are often the attendants on one palace, in the capacity of servants, cooks, butchers, tailors, shoemakers, artists, comedians, &c. They may be seen, when not employed, sleeping like the domestic animals in the ante-rooms, or on stair-cases; and generally they have no other bed. At Moscow the nobles often retain dwarfs, who are splendidly dressed, to stand behind their master's chair at feasts; a remnant or rather an evidence of the barbarity of past ages. Giants are in equal demand; but they are less numerous than the dwarfs.

The Russians seem not to have much love of country ; they are willing exiles, often even to Siberia, and they overrun the south of Europe. They have not the moral sentiments, that bind man to his home as the scene of his childhood, and of his friendships and affections ; they are led by the senses and impulses, and wherever these may receive the most gratification, there the Russian is the most at home. The burning of Moscow is not now considered a sacrifice of patriotism. The governor of the city, to whom it has been attributed, supposes it to have been committed by the wretches, who remained behind to plunder. Honesty seems to have fled to a more genial climate, and extortion alone flourishes. The merchants almost invariably cheat, and ask for their wares double what they may be induced to take, while the whole system, both of police and traffic, is one of overreaching and plunder. These are grievous charges, but they are supported by the testimony of almost every traveler. No profession is honorable but that of arms, and to this only the nobility devote themselves.

The peasantry have the national facility of imitation, but as little of the inventive power as pertains to their superiors. Though rendered in some degree stupid by their situation, many of them have been found capable of imitating the best works of art. They are addicted to intoxication, and their morals are in a most depraved state. The lower classes of Russians are covered with filth and infested with vermin ; and the latter, it is said, have no respect for rank, pertaining both to nobles and serfs. The women are the drudges, which they always are among barbarians, and are as much subjected to the blows of their husbands, as these are to the cudgels of their masters. All the operations and implements of agriculture denote an age far behind the present. What the fathers did, that do the sons ; the harrows are but the lateral branches of the fir tree, sharpened, and dragged over the ground, and many other implements are equally rude.

The house of a peasant is a receptacle of filth ; neatness is unknown in Russia. The door is closed in winter, and the air, heated by stoves and tainted by respiration, becomes excessively offensive and noxious. The Russian of the lower orders makes his presence obvious to more senses than one. Almost all Russia presents a picture of the same state of society ; for the cities of Moscow and St. Petersburg, form but inconsiderable parts of the whole. The Cossacks, as much as they are to be execrated in war, form a pleasing exception. They live in neat villages, in a highly social and not uncultivated state. They are, to a great degree, neat in their houses, persons, and dress. They have books and musical instruments. Dr. Clarke describes them as the most cheerful, kind, and honest of all the inhabitants of Russia. The ladies are handsome, and intelligent ; many of them play on the piano forte, and have the other European accomplishments. The Russians make good soldiers, and yet they have not a military spirit. But their political situation makes them passive instruments in the hands of their rulers. A serf gains his freedom, and improves his situation, by entering the army. Besides this, he is strong, hardy, and constitutionally brave.

The *Calmucks*, who belong to the great Mongol family of Eastern Asia, roam over the steppes between the Don and the Volga. They settled here toward the end of the 17th century, but about 100 years later, in 1771, the bulk of the nation returned to the banks of the Ili, in the Chinese empire, only about 50,000 of their number remaining in Russia. They are Buddhists in religion. They have no fixed abode, but dwell in movable huts called *hybakas*, which they carry from place to place, as they follow their herds to pasture. They do not cultivate the ground, living wholly on animal food, their herds consisting chiefly of camels, sheep, and horses, with very few black cattle. The *Calmucks* are not in reality the immediate subjects of the princes in whose territories they live, but they have their own hereditary chiefs and nobles, to whom they pay strict obedience.

The *Cossacks* are of Slavonic origin, but seem to have been largely mixed with Tartars, *Calmucks*, and Gypsies. After a long series of struggles with the Tartar khans, the Poles, and the Russians, their hetman, or chief, sought the protection of the latter in the middle of the 17th century. The heir apparent of the Russian crown now bears the title of hetman of the *Cossacks*. Every *Cossack* between the ages of 18 and 40 is liable to perform military duty, and their troops are wholly composed of cavalry. They receive no pay but when in the field, or engaged in guarding the frontier ; but they are essentially a nation of soldiers, having their own local government. The dress of the soldiery is a short vest in the Polish style, large trousers of deep blue, and a black sheepskin cap. Their arms consist of a long spear, sabre, musket, pair of pistols, and a whip with a leather thong, which they apply not to their steed, but to the back of a flying enemy. The great body of the *Cossacks* live on the Don, and its branches ; and their capital has already been described ; but there are some on the Ural, in Siberia, &c.

31. Education. Ignorance is nowhere more profound than in Russia ; yet much has been done to spread the means of education. Steps have been taken, and at vast expense, that must hereafter diffuse knowledge over the empire. Every parish, or two parishes, united, must have a school, and, besides these, there are 503 general establishments, with 1,505 teachers, besides 51 gymnasia, one in the capital of each government. In the latter, the students are prepared for the universities, of which there are seven, viz. one at Moscow, St. Petersburg, Kiew, Dorpat, Charkov, Kasan, and Helsingfors. There are several schools for the education of instructors, and upwards of 150 schools attended by students in theology. The Jews have a celebrated national institution, and there are besides, medical, mineral, mining, marine, and other schools.



Artificial Ice Mountain.

32. Amusements. Many of the amusements in Russia are those of the children in other countries. A large assembly will often entertain themselves with forfeits and other similar games. In the cities, ice mountains form a favorite recreation. These are inclined planes, high and steep, covered with ice, down which the people descend in cars, or on skates, and with the greatest velocity. Swings are also used of various sorts, some turning in a perpendicular, and others in a horizontal manner. On certain festivals, all these are placed in the public squares, and

the people mingle in the amusements, with much animation, and without distinction of rank.

It may be remarked, that in despotic countries the extreme ranks are on more familiar terms than under free governments. There is no jealousy between them. At some masquerades all persons have free admittance, who can pay a small sum for a ticket, and the laborer comes in contact with the emperor. This kind of familiarity is exemplified in the national mode of salutation, which is by kissing. Peasants kiss each other, and the rank of a princess does not shield her from a salute on the cheek, by the lowest boor, that presents her an egg at Easter. Boxing and wrestling are not uncommon, and billiards and cards are general amusements. The chief game, as in Sweden, is a kind of whist called *boston*. All classes frequent the baths, which are numerous. Some of them are similar to those of Finland. The bathing is also nearly as promiscuous.

33. State of the Arts, Sciences, and Literature. No native Russian has produced great works of art ; but many have successfully imitated them. The embellishments of cities and palaces, are chiefly executed by foreigners. There is some taste for music ; and the national instruments are the *balalaika*, a guitar with two strings, the *gussla*, a kind of harp, flutes, and bagpipes. The national ballads are from the 11th to the 13th centuries. Vladimir and his knights, are celebrated in them, as much as Charlemagne and his peers were celebrated by southern minstrels. Nestor, a monk, wrote the annals of Russia, at the close of the 10th century. Russia has, however, little national literature ; what there is, is principally poetry and history. The mathematics are favorite studies. A recent traveller relates, that he was present at a party, where the conversation of the ladies was chiefly upon the "polarity of the rays of light." It is probable, that there was more affectation than knowledge in this, though the female studies are not well selected.

34. Laws. The laws are voluminous ; but the Emperor Nicholas has promulgated a digest in 16 volumes. Torture is abolished, and the common punishment is fine, the knout, and banishment to Siberia. The punishment of death is nominally abolished. But torture may be inflicted without the rack, and death without the scaffold. Justice is in Russia more uncertain than fortune. It is a common saying, founded on suffering, "God is high, and the emperor is far away." When the emperor is near, it is not always as the minister of justice, or the angel of mercy. The trial of those who have enemies in power may be long delayed, or it may be suddenly or unjustly held. Dr. Morton relates, that in the prison visited by him, among several prisoners, whose trial had been delayed, one had waited 12 years. An order of the emperor is stronger, and more sudden in its operation, than a sentence of court ; for the delays of testimony are avoided. The victim, who has offended the emperor or his informers, is taken, if in

the depth of a polar winter, to Siberia, where he is made to change his name, to hunt in the arctic forests, or delve in the mines, with every species of malefactor. No tidings of him reach home; there is no transmission of letters, and the tracks point only towards Siberia, as they pointed to the den of Cacus. Many an exile dies on the road, or, if he survives, it were better that he had so died.

"Alas! not wife, nor children, more shall he behold,
Nor friends, nor sacred home."

The roads to Siberia have of late been crowded with the brave and devoted Poles, of all ranks, and of each sex. Victory could not allay the exasperation of the conqueror. At Varna, the capitulation of which was bought, while it was vaunted as a victory, an English surgeon was taken. The particular resentment of the emperor was directed to him, on the plea that he was an engineer, though it would have occurred to a just prince, to be certain of the fact. The surgeon was, in spite of the remonstrance of the English at Odessa, sent to Siberia, in the depth of winter, so ill in health, and so thinly clad, that he could hardly have survived.

The peasants are by law subjected to the cudgel of the proprietor, and this "image of authority" is seldom at rest. The use of it is universal, and it is related, that when a gentleman asked his slave why he always persisted in folding a newspaper with the title inwards, his answer was, "Please, Sir, because you never beat me." The emperors formerly held the same instrument over the nobility, but this has given place to harder punishment: to banishments, confiscations, and imprisonment. The *knout* is the peculiar punishment in Russia. It is torture in the highest degree. To be "knouted without mercy" is to suffer the extremity of human torture, applied in the most brutal manner. The sufferer is tied to a post by the neck, arms, and knees. His only covering is a pair of loose drawers. The executioner brandishes a whip, with a flat, hardened lash, of dried hide, and every blow smites the flesh from the bones. In the first 10 or 12 lashes, the sufferer shrieks miserably, but he soon becomes weak, and utters only faint groans, and, in a few moments, nothing is heard but the bloody splash of the knout on the senseless body. A full hour is occupied in giving the greatest number of blows (upwards of 200) and the body is taken lifeless from the post. But Russian justice is not yet satisfied; an instrument like a comb, with iron teeth, is struck forcibly into the temple, and the marks rubbed with gunpowder, as a perpetual mark of shame, should the sufferer survive. Then a pair of pinchers, like curling-irons, are fixed upon the nostrils, and each is cut or torn away for the whole length. This is so painful, that it affords a momentary life to the body in the last stage of exhaustion. The wretched man is then put into a cart, and removed immediately to Siberia. In the execution here described, which took place at St. Petersburg, he died on the second post of his journey.

35. *Antiquities.* Russia has no antiquities, except the tumuli or barrows that extend nearly all over the country, though they are the most numerous in the eastern part. They are similar to the barrows in England, and the Indian graves in North America. Some that have been opened, were found to contain human remains.

36. *Population, Revenue, &c.* The population of the European part of Russia, exclusive of Poland and Finland, is about 55,000,000. The revenue of the empire is 80,000,000 dollars; the debt, 180,000,000 dollars.

37. *History.* Russia did not acquire importance as an independent state, till the 15th century. Before this period, its sovereigns were often in a state of vassalage to the Tartar Khans. Peter the Great laid the first permanent foundation of the Russian power, and introduced civilization and military discipline early in the 18th century; Catherine augmented the empire by the partition of Poland, and the acquisition of territory from the Turks. The limits of the empire were further extended at the close of the 18th century, and Russia became one of the chief military powers of Europe. She joined the coalition against revolutionary France, but the victories of Napoleon for a while checked her power. The sovereignty of the continent was divided between France and Russia. Napoleon attempted to crush his rival, and the disastrous issue of the Russian campaign shook the foundation of his own empire. The decline of the French power brought the armies of Russia into the west of Europe, extended her territorial limits, and developed her military strength. Russia is, perhaps, at the present day, the most powerful empire of the European continent, and the weakness of her next neighbors in Europe and Asia, (Turkey and Persia,) have lately given her new opportunities for aggrandizing herself in that direction, in which the northern hordes have ever been most eager to make conquests.

CHAPTER LVIII.

GENERAL VIEW OF ASIA.



1. *Boundaries.* Asia is bounded on the N. by the Arctic Ocean ; on the E. by Behring's Strait and the Pacific Ocean ; on the S. by the Chinese Sea and the Indian Ocean, and on the W. by the Red, Mediterranean, and Black seas, and Europe. It extends from lat. 1° to 78° N. and from long. 26° E. to 170° W., having an area of 16,160,000 square miles, and a population of about 400 or 500 millions.

2. *Mountains.* Asia contains the loftiest summits in the world. The *Ural Mountains*, between Europe and Asia, and the *Ghauts*, in Hindostan, run north and south. The Japanese islands are covered with lofty mountains, containing numerous volcanoes. The numerous chains of the *Taurus* traverse the country, between the Persian Gulf and the Black Sea, in various directions. Between the Black and Caspian seas, are the *Caucasian Mountains*, the loftiest chain of which may be considered as the division line of Europe and Asia. The highest summits have an elevation of 18,000 feet.

Among the numerous groups of mountains, that cover the surface of Central Asia, there are four great chains or systems, which lie almost in a parallel direction, ranging nearly from west to east, or from southwest to northeast. These, beginning with the most northern range, are 1st, the *Altai* ; 2d, the *Thian-shan*, or *Teen-shan* ; 3d, the *Kuen-lun*, or *Kwanlun* ; and 4th, the *Himalaya* mountains. Between the Altai and the Thian-chan, are comprehended the plain of *Zoungaria*, and the basin of the river Ili, which falls into lake Balkash ; between the Thian-



Map of Asia.

chan and Kuen-lun, are the countries of Little Buchar, or Kashgar, Zerkend, Khotan, the great desert of Gobi, or Chamo, Tourfan, Khamil, and Tangout; and, lastly, between the Kuen-lun and Himalaya, are Eastern and Western Thibet.

The Altai system, properly so called, occupies a space hardly extending seven degrees in longitude, though in its usual acceptation, the term Altai designates the northern boundary of a mountainous region, stretching from the sources of the Irtyche to the sea of Okotsk. Its highest point lies to the northwest of lake Oubsa; to the east of this lake, the chain takes the name of Tangnou, which it retains till it reaches lake Kossogol. From this place, it is continued, under different appellations, till it joins the Iablonnoi-Khrebet, or "Chain of Apples," which stretches away to the northeast, or in a direction parallel to the sea of Okotsk. The mean latitude of the chain is between 50° N. and $51^{\circ} 30'$. Its name, which

in Chinese is said to signify "Mount of Gold," has probably been given to it on account of its great metallic riches. At present, it produces, annually, 70,000 marks of silver, and 1,900 marks of gold. Although its summit is said by the Chinese to reach the *milky-way*, yet no part of the chain, probably, attains a greater elevation than 11,500 feet. The second great chain of mountains, called in Chinese Thian-chan, and in Turki Tengri-tugh, (both appellations signifying the Celestial Mountains,) runs from west to east, nearly along the 42d parallel of north latitude. The culminating point of the chain is probably to be found in the mass of mountains celebrated under the name of Bokhda-Oola (Holy Mountain).

The third great system of parallel mountains, is the Kuen-lun, which runs nearly along 35° . A part of this range, under the meridian of 70° east, is called the Thsoun-ling, or Blue Mountains, and forms the southern extremity of the Beloor, or Belut-tagh, a transverse chain, which follows the direction of the meridian through nearly ten degrees of latitude. From the Beloor the chain of the Kuen-lun extends in an easterly direction, towards the sources of the Hoang-ho, and it penetrates even into the Chen-si, a province of China. That part of Asia, however, which it traverses, is very little known, and we have as yet no observations, either of the mean height of the chain, or of its principal summits. Between the Kuen-lun and Thian-chan, and between the 90th and 100th degree of east longitude, there are two ranges of mountains running in the same direction, the Nanchan, or Khilian-chan, a little to the north of lake Khouk-hounor, and the Tangout, which forms the northern boundary of the desert of Gobi.

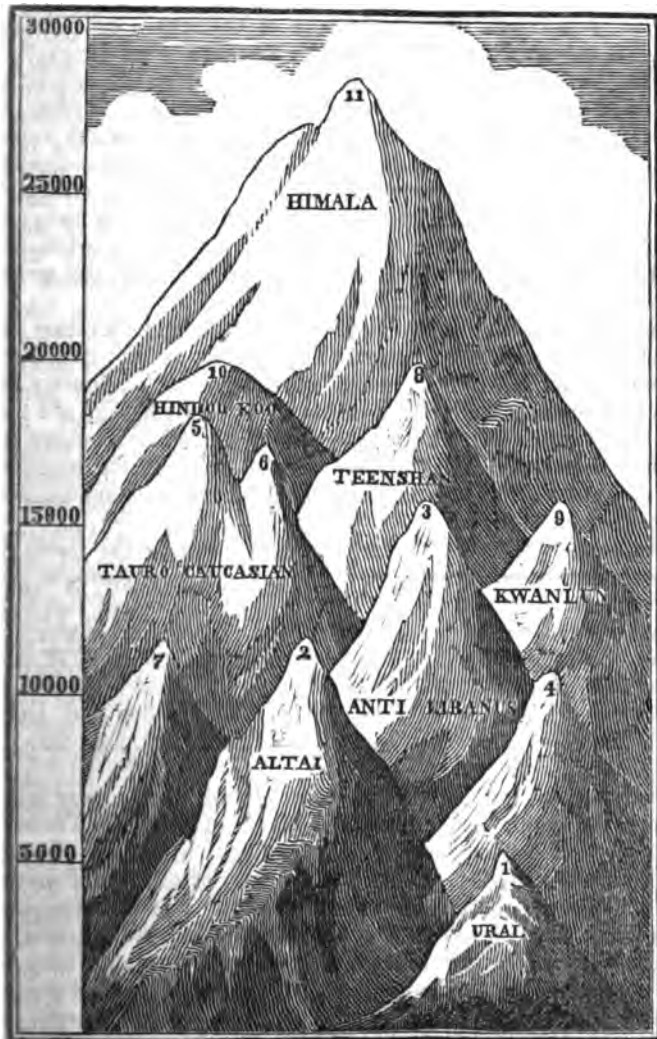
The last and best known of the four great chains, is the Himalaya. The general direction of this system is from northwest to southeast; it is consequently inclined at a considerable

angle to the Kuen-lun, with which it unites between Kashmir and Fyzabad. Following this range, to the east we find it forming the northern boundary of Hindostan, and entering China. To the west of the Beloor, the united chains of the Himalaya and Kuen-lun form the range of the Hindoo-kho, which Humboldt regards as a continuation of the Kuen-lun, though it is generally considered as a prolongation of the Himalaya. After following the direction of the parallel through five or six degrees, this range inclines to the northwest, and, passing between the plateau of Iran, and the Caspian, is at length lost in the province of Adzerbaidjan. If, therefore, we regard the Hindoo-kho as a continuation of the Himalaya, the last will form a continuous system, extending from the west of Persia to the eastern sea, or through 73 degrees of longitude. Some of the summits of this stupendous range are known to have a greater elevation than any other points on the surface of the earth. Djavahir, on the western side of the country of Nepaul, attains the altitude of 25,746 feet; while Dhawalaghiri, on the eastern side

of the same country, rises to the enormous height of 28,096 feet above the level of the sea.

Between the first and second systems, the country is enclosed on the eastern side by the Khing-khan-oola, a range which stretches between the Altai and the Thian-chan, in the direction of north-northeast, beyond the meridian of Pekin. On the western side, towards Tchoui, Sarasou, and the lower Sihoun, it is entirely open. Exactly the reverse of this is the case with the country between the Thian-chan and Kuen-lun, which is open on the eastern side, but strikingly enclosed on the west by the transverse chain of the Bolor. This chain strikes off from the Kuen-lun at right angles, and, following the direction of the meridian, pierces through the Thian-chan to the northwest of Kashgar, and extends to the Alatau, another chain running from west to east between the lakes Balkash and Issikoul. The intermediate space between the Kuen-lun and the Himalaya, comprehending Thibet and Katchi, is covered with mountains so closely grouped together as to form an almost continuous plateau or table-land. Its general elevation is great, but, as might be anticipated, very unequal. The mildness of the winters and the cultivation of the vine in the gardens of H'lassa in Eastern Thibet, under the parallel of 29° 40', indicates, as Humboldt remarks, the existence of deep valleys and circular depressions.

3. *Elevated Land.* Though Asia undoubtedly presents a greater mass of elevated land



Comparative Height of the Mountains of Asia.

1. Ural, ...	5,200 feet.	6. Mount Ararat, ...	17,280 feet.
2. Altai, ...	12,000 "	7. Elboorz, ...	12,000 "
3. Anti Libanus, in which are Mt. Carmel and Mt. Tabor, }	16,000 "	8. Teenshan, ...	20,000 "
4. Mt. Lebanon in Anti Libanus Chain, }	11,000 "	9. Kwanlun, ...	16,000 "
5. Tauro Caucasian, ...	18,000 "	10. Hindoo Koo, ...	20,000 "
		11. Chamoulari (Himalaya), }	28,000 "

than any of the other quarters of the world, Africa not excepted, yet all the facts that bear on the subject concur in proving, that the notions prevalent respecting its general elevation have been greatly exaggerated. A large portion of the interior of the continent, however, still remains unexplored by European travelers; and even in regard to those parts where it is easy of access, there is a great want of good barometrical observations. On the northern side of the Altai range, and indeed over the whole northern extremity of Europe and Asia, the elevation of the ground is very inconsiderable. From the plains of Brabant one may pass, from west to east, to the steppes which border the western declivity of the Altai and Chinese Zoungaria, — from the Scheldt to the Ienisei, — over 80 degrees of longitude, without meeting with a single elevation exceeding 1,200 or 1,300 feet. Of late years a great number of barometrical measurements have been made on the frontiers of Chinese Zoungaria, the banks of the upper Irtyche, and the plains bordering on lake Dzaisang, in countries situated on the southern side of the Altai range. The mean of these observations gives to this district, and to a great part of the immense steppe of Kirghiz, an elevation scarcely exceeding 1,300 or 1,600 feet above the level of the sea, and consequently not greater than that of the lake of Constance or the city of Munich. Of the countries lying to the south of the Kuen-lun, we have a very imperfect knowledge; but the platform of Persia, which extends from Teheran to Shyras, and from which the two great chains of the Kuen-lun and Himalaya proceed, is estimated by Fraser to have a mean elevation of about 3,500 feet. In the immense longitudinal valleys which separate the principal mountain chains, there are extensive tracts of country which are considerably depressed below the general level of the plains. It is worthy of remark, that the countries situated between the Kuen-lun and Thian-chan have a general inclination from west to east, occasioned, apparently, by the upraising of the great transverse chain of the Bolor; while the valley of Zoungaria, between the Thian-chan and the Altai, is inclined to the west, the transverse ridge in this case being situated at the eastern extremity of the valley.

From a comparison of all the observations we possess on the configuration and elevation of the Asiatic continent, it results, that the central region, between the parallels of 30° and 50° , and between the meridians of the Beloor and lake Baikal, contains a vast extent of country of which the elevation probably does not exceed that of the plains of Bavaria, Spain, and the Mysore. There is every reason to suppose, that plains of the same elevation as those of Quito and Titicaca occur only, if they occur at all, in the bifurcation formed by the junction of the Himalaya and Kuen-lun, in the group of mountains surrounding lake Khoukhounor, and in Gobi to the northwest of the Thian-chan.

4. *Depressions below the Surface of the Sea.* The most singular feature in the form of the Asiatic continent, and one of the most remarkable on the surface of our globe, is the depression of a very considerable portion of the northwest of it below the level of the sea. Between the Kouma, the Don, the Wolga, the Iak, the Obtchey-syrt, Lake Aksal, and the Lower Sihoun, and along the Amoo, the whole country, including a space exceeding 375,000 square miles, is depressed below the general level of the surface of the earth, and forms, as it were, an immense basin, the lowest part of which is occupied by the Caspian Sea and Lake Aral. The surface of the Caspian is 320 feet below the level of the Black Sea, and that of Lake Aral 263 feet.

5. *Volcanoes.* The traces of volcanic action in Central Asia extend over a very large portion of the interior of the continent, embracing almost the whole of Chinese Tartary, and, on account of the peculiarities of their position, offer to the geologist a subject of very interesting speculation. The principal seat of volcanic action in the interior of Asia is in the second range of mountains, or the Thian-chan, the whole northern declivity of which presents volcanic phenomena. The most remarkable volcano in this chain is the mountain called in Turki Echikbach, and in Chinese Pe-chan, or White mountain, an appellation which may be derived either from the circumstance of its rising to the region of perpetual snow, or because its surface presents a whitish appearance, from its being covered with muriatic efflorescences. According to the reports of the Chinese, it vomits forth fire and smoke without intermission. On account of its central position, and great distance from the sea, this volcano is an object of peculiar interest to the geologist. It is situated a little to the east of Aksou; the longitude of which, as determined by the missionaries, is 79° east longitude. Its distance from the Caspian sea is about 1,400 English miles. The Caspian Sea appears to be surrounded by a volcanic territory. On the eastern side hot springs burst forth at Soussac, in the Karatau moun-

chine, near the city of Turkestan. On the south and west sides, 2 volcanoes are still in activity, — Demavend, which is visible from Teheran; and Seiban Dagh, which is covered with vitreous lava. The chain of the Caucasus abounds with trachytes, porphyries, and thermal springs. Numerous mud volcanoes appear on the isthmus between the Caspian and Black Sea. On the 27th of November, 1827, at the village of Iokmali, in the territory of Bakou, about 3 leagues west from the shores of the Caspian, violent earthquakes and noises were followed by an eruption of flames and stones. A space extending 1,280 feet in length, and 960 feet in breadth, burned without interruption during 27 hours, and was raised above the level of the neighboring country. After the flames were extinguished, columns of water were observed to gush forth, which continue to flow at the present time.

6. *Rivers.* Although Asia is the largest division of the globe, the Asiatic streams are inferior in size to those of the American continent. The principal rivers descend from the northern, eastern, and southern declivities of the great central table-lands into the Arctic, Pacific, and Indian Oceans. The *Yenisey* is the largest; the *Oby* and the *Lena* are also large rivers. The *Hoang-ho*, and the *Kiang* have an easterly course. The *Irawaddy*, the *Ganges*, the *Indus*, and the *Euphrates* flow south. Maite Brun gives the following estimate of the proportional volumes, or, to speak more exactly, of the surface of the running waters of this part of the world. The total being taken as unity, then

The rivers of Siberia	{ flowing to the N. are as	0.31
	{ flowing to the E.	0.02
“ of China and Chinese Tartary		0.15
“ of all India		0.27
“ of Central Asia		0.08
“ of Asiatic Turkey		0.10
“ of Persia with Armenia		0.06
“ of Arabia		0.03

7. *Seas.* Asia contains several large inland bodies of water, which are improperly called seas. They are principally salt. The largest of these is the *Caspian Sea*, which receives several considerable rivers, but has no outlet; its bed is indeed several hundred feet lower than the ocean. It is 650 miles in length by 250 in breadth, and covers an area of about 245,000 square miles. It is in many places too shallow for navigation, although in some parts very deep. It abounds in sturgeon, beluga, salmon, and other fish, and several species of seal are taken in its waters. The *Sea of Okotsk*, the *Sea of Japan* or *Gulf of Corea*, the *Eastern Sea*, between the Loochoo islands and China, and the *Chinese Sea* to the south of Formosa, are large bays on the eastern coast. The *Sea of Bengal* and the *Arabian Sea*, the *Persian Gulf* and the *Red Sea*, are the principal arms of the sea on the south. The Red Sea is about 1,400 miles in length, but nowhere more than 200 in breadth; it has few good harbors, and the navigation is rendered difficult by storms, shoals, and coral reefs.

8. *Straits.* The *Straits of Babelmandel* connect the Red Sea with the Arabian Gulf. The *Straits of Ormuz* lie between the Persian Gulf and the Gulf of Ormuz. The *Strait of Malacca*, which separates Sumatra from the continent, and the *Strait of Singapore*, between the island of Singapore and Malacca, are the most frequented of Asia. The *Strait of Corea* on the south, and that of *Sougar* or *Sangar* on the north, connects the Sea of Japan with the ocean, and the *Strait of Laperouse* connects that sea with the Sea of Okotsk. The *Channel of Tartary* flows between the continent and the island of Seghalien; and *Bhering's Strait* divides the eastern and western hemispheres.

9. *Peninsulas.* *Asia Minor*, between the Levant and the Black Sea, *Arabia*, the *Deccan*, *Malacca*, *Corea*, and *Kamtschatka* are the most remarkable peninsulas of Asia.

10. *Islands.* On the eastern coast are the *Kurile Islands*; *Seghalien*, belonging partly to China and partly to Japan; the *Japanese Archipelago*; and *Formosa*, the *Loochoo* isles, and *Hainan* belonging to China. Near the coast of Malacca are the *Junkselon*, *Nicobar*, and *Andaman* islands. On the coast of Hindostan are *Ceylon*, the *Laccadives*, and *Maldives*. In the Mediterranean, *Cyprus*, and in the Archipelago, *Rhodes*, *Samos*, *Mitylene*, &c., belong to Asia.

11. *Climate.* The great elevation of Central Asia, and the direction and elevation of the mountainous chains, modify the climate of this continent, and give it a peculiar character. In

respect to climate, Asia may be divided into 5 regions. 1. Central Asia, lying between the Altaian and Himala mountains, although situated between 28° and 50° N. lat., experiences the rigors of the most northern regions, and enjoys but a short summer. 2. Southern Asia, comprising the two Indies, sheltered by a huge mountainous rampart from the icy winds of the north, has no winter; the summers are long and warm, and the seasons are distinguished into the wet and the dry. 3. Northern Asia, embracing all the extensive region north of the Altai, is exposed to all the rigors of a polar climate. 4. Eastern Asia, exposed at once to the cooling influences of the interior highlands, and of the Pacific Ocean, is cold and moist. 5. Western Asia, lying between the Indus and Mediterranean and the Caspian and Red seas, enjoys a milder climate and a much more serene air.

12. *Vegetable Productions.* Asia, from its vast extent and unequal surface, comprehends the vegetable products of all climates, from the creeping lichen, which flourishes on the borders of perpetual snow, to the splendid varieties of tropical vegetation. The agricultural staples are in the warmer regions rice, of which Asia yields 27 varieties, maize, millet, and many varieties of a coarser grain, called dourra, as well as other species of legumes unknown in Europe. In the more temperate regions, the different cereal grains are produced, and barley and oats are raised as far north as 60 degrees, and on the elevated plains of more southern regions. Beyond this, and in the higher plains, vegetation comprises only dwarf trees, berry-bearing shrubs, and lichens. The tea plant is indigenous to China, and coffee to Arabia. The sugar-cane is produced in India, and the poppy plant furnishes great quantities of opium for exportation. The cotton shrub, and the mulberry tree grow throughout the southern regions, and various aromatic plants and gum-trees enrich this part of the continent, yielding mace, cassia, camphor, cinnamon, cloves, and nutmegs, the fragrant balm of Mecca, frankincense, and myrrh. Asia also furnishes many medicinal plants and dye-stuffs.



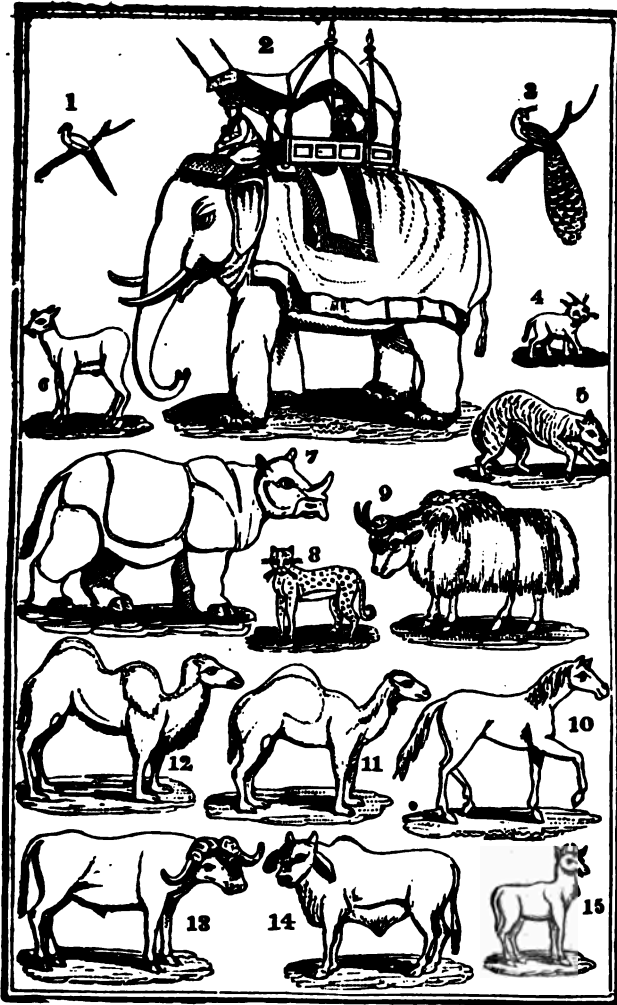
Tea Plant.



Cedar of Lebanon.

In the south, the forests abound with valuable trees, furnishing various durable, ornamental, and dye woods. The teak tree of the Indies surpasses all others in hardness and durability. The palms yield a rich and nutritious juice, and all the common fruit-trees of Europe, many of which were borrowed from Asia, are found in different regions. Asia Minor and the banks of the Euphrates abound in the myrtle, laurel, mastic, tamarind, cypress, and other trees. The oriental planes are numerous in Persia, and the oak and cedar grow to a great size in the Syrian mountains. In the colder regions, are the oak, ash, elm, &c., the dwarf birch, mountain willow, and the dark, evergreen pines and firs. Further details will be found under the principal heads, as Hindostan, China, Siberia, &c.

13. *Minerals.* Asia yields all the useful and precious metals, but the wealth of the Asiatic mines has not been fully explored. Hindostan and Asiatic Russia produce diamonds; gold and silver are found in China, Japan, the Indies, and Russia; tin, in China and Further India; quicksilver in China, Japan, and Ceylon; and lead, copper, iron, coal, and salt abound.



Comparative Size of Animals of Asia.

1. Pheasant.
2. Elephant.
3. Peacock.
4. Caracal.
5. Tiger.
6. Musk Deer.
7. One-horned Rhinoceros
8. Chetah.
9. Yak.
10. Horse.
11. Dromedary.
12. Camel.
13. Buffalo.
14. Zebu.
15. Nyl Ghau.

14. *Animals.* The *Tiger* (*Felis Tiger*) is peculiar to Asia. He is a native of Hindo-
stan, Chin India, Sumatra, China, and a few other districts. He is fearless of man, ferocious,



Tiger.



Serval.

and blood-thirsty. He will kill and drag off a horse or a buffalo with the greatest ease They.

are most common in Malabar, and are the scourge of the country. The usual mode of hunting them is with elephants.

The *Serval of India* is found in Hindostan and Thibet. It is about 3 feet in length, and is of a fox-color, spotted with black. It is fierce and rapacious, leaping from tree to tree in pursuit of birds, &c.

The *Chetah* (*F. venatica*) is a sort of leopard, but smaller than that animal. He is common in Southern Asia, where he is domesticated and employed in hunting, like a hound. He is very playful and familiar. In hunting, he approaches the animal secretly, and, when sufficiently near, he makes 5 or 6 enormous bounds.

The *Panther* (*F. pardus*), *Leopard* (*F. leopardus*), and *Ounce* (*F. onca*), are common. The *Lion* of southwestern Asia (*Leo Asiaticus*) is distinct from the African lion, and still a-



Chetah.



Large-lipped Bear.

other species, with little or no mane, has lately been discovered in Hindostan. Several species of bear are also peculiar to the mountainous districts of Asia; one of these (*Ursus Syriacus*), lately discovered on Mount Lebanon, is frequently alluded to in Scripture; the *Large-lipped Bear* (*Ursus labiatus*) is found in Bengal; the white or polar bear is common to America, and the brown bear to Europe.

The *Bengal Loris* or *Slow Lemur* (*Nycticebus Bengalensis*), is so sluggish in its motions



Bengal Loris.

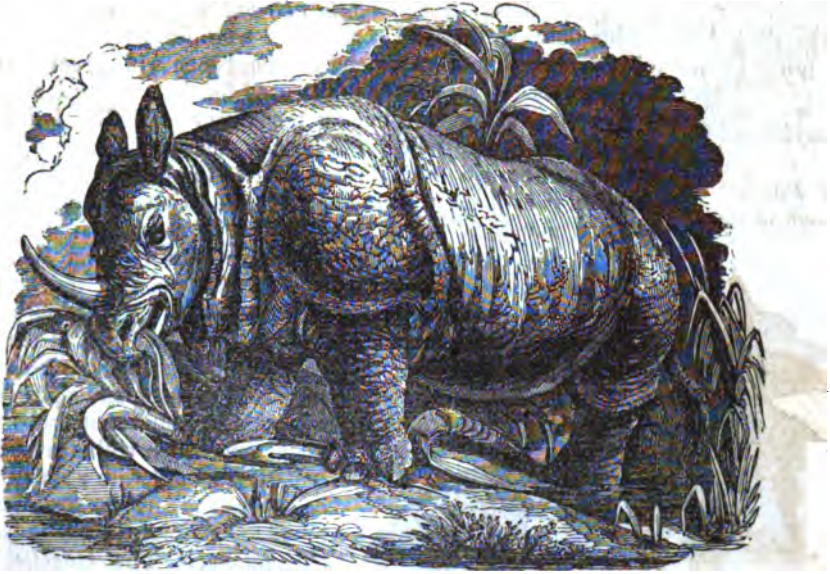


Civet.

as to have been mistaken for a Sloth; he is about the size of a cat, and is gentle, familiar, and fond of being caressed. The *Civet* (*Viverra civetta*) is common to Asia and Africa.

The *Rhinoceros* (*Rhinoceros Indicus*) is, next to the elephant, the most powerful of quadrupeds. He is 12 feet long, and 6 or 7 in height; his hide is thick enough to turn a bullet. He

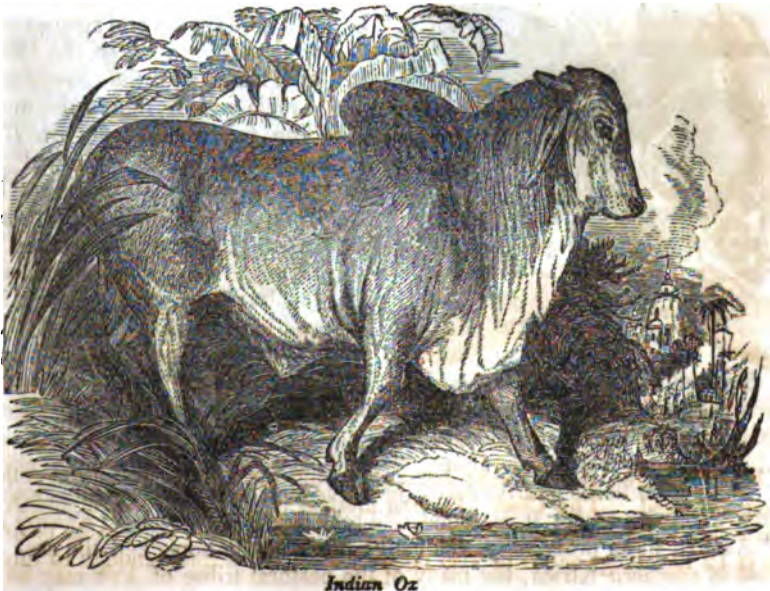
is found in the warm countries of Asia, and delights to wallow in the mire. His horn grows slowly, and is sometimes 4 feet in length.



Rhinoceros.

The *Elephant* (*E. Asiaticus*) of Asia is larger and stronger than that of Africa. From time immemorial, the people of India have used elephants in war. They are very numerous in the warm countries of Asia, and even in a wild state their manners are social and inoffensive. Their common food is roots, herbs, leaves, young branches, fruit, and corn; in quest of food, they often ravage large tracts of territory. They are taken by being decoyed into enclosures, and are easily domesticated. They carry burdens of 3,000 or 4,000 pounds' weight, and are used for almost every species of labor requiring great strength. Those of Ceylon exceed all others in courage and sagacity. The king of Ava had an elephant of a cream color, which was taken in 1806, and exceeded the age of 25 years, without showing any appearance of age.

Of the ox kind (*Bos*), no fewer than 4 distinct species have been from time immemorial domesticated in different parts of Asia. The *Yak*, or *Grunting Ox* (*B. Grunniens*), is the



Indian Ox

common cattle of Central Asia ; this animal furnishes the tails of long, silky, white hair, of which the natives make their military standards, and which are used all over the East, under the name of *chouries*, in driving off flies. The *Buffalo* (*B. bubalus*) is found both wild and tame in southeastern Asia ; fights between the buffalo and tiger were formerly a favorite sport of the Indian princes ; and this animal is known to defend the herdsmen with great courage from the attacks of the tigers and leopards. The buffalo is not used for draft or burden, but only for its milk. The *Gayal* (*B. Gavæus*) is common among the Burmese. The *Indian Ox* (*B. indicus*) is found in all southern Asia, the East India Islands, and on the eastern coast of Africa. It is used as a beast of draft and burden. Its flesh is inferior to common beef, but the hump is fat and delicate. The animal is as large as a common ox, and of a slaty-gray color.

The antelopes of Asia are numerous, and comprise some of the largest and smallest of this



Nyl Ghau.



Musk Deer.

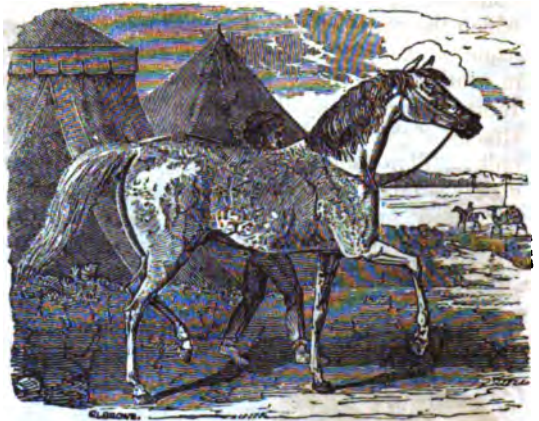
extensive genus. The *Nyl Ghau* (*Antelope picta*) is one of the largest and most magnificent of the antelopes known, being upwards of 4 feet high at the shoulder. It is a very powerful and resolute animal, and frequently turns upon its pursuers ; previous to making its attack, it drops upon the fore knees, and when within a proper distance, it darts forward with a fury that no animal can withstand. Even in confinement it is found to be vicious, violent, and of a changeable temper. The *Gazelle* (*A. subgutturosa*) has been immortalized by the poets for its beauty and grace. Its eyes are large, dark, and expressive of softness ; all its movements are replete with grace and agility. It is rarely more than 2 feet high, and is less than 3 feet long. The *Four-horned Antelopes*, or *Chicharas*, are peculiar to India ; they are delicately shaped, wild, and agile little creatures, about 20 inches high. The *Dorcas Antelope*, the *Goral* of Nepal, the *Thar* of the same country, and other species, occur. The *Musk Deer* (*Moschus moschiferus*) of Thibet, yields the valuable drug so called.

There are several species of sheep, among which *Angora Sheep*, the *Fat-rumped Sheep* of Thibet, and the *Broad-tailed Sheep* of Arabia and Syria are the most remarkable. The hair of the *Angora Goat* is long and soft, and much esteemed for fabricating shawls and other articles ; but the *Shawl Goat* of Cashmere furnishes the soft and beautiful wool, of which the Indians manufacture those rich and valuable shawls so highly prized by the ladies in this country and in Europe.

It is most probable that both the *Camel* (*Camelus Bactrianus*) and the *Dromedary* (*C. dromedarius*) are of Asiatic origin. The camel, which is distinguished by two humps on the back, is confined to the wandering Tartar tribes of central Asia, but the dromedary is scattered over all southwestern Asia and northern Africa, and is found, as a domestic animal, in India and China. This is the animal mentioned in the lists of the great herds and flocks of the earliest patriarchs, and is invaluable to the inhabitants of the countries where it is found. Three species of *Horse* (*Equus*) occur in Asia, and central Asia is, in all probability, the native home of the horse and the ass. These animals are not found in southern Africa, but many of the pastoral tribes of Asia may be said to live on



Dromedary.



Arabian Horse.

horseback ; and the noblest breeds of horses are still to be met with in Arabia. Horse-flesh is an important article of food with some nations, and mare's milk supplies the place of that of the



Ass.

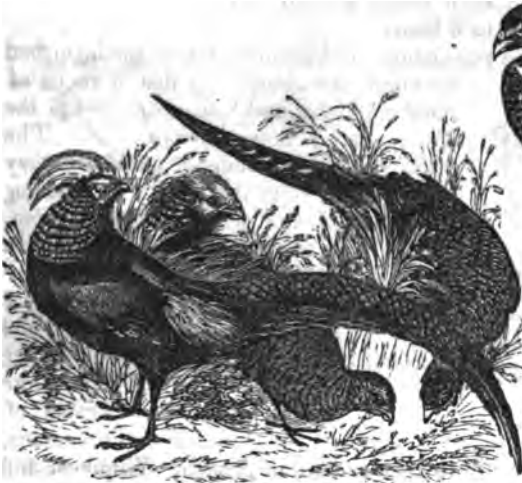
kine among some of the tribes. The *Ass* (*E. Asinus*) of Asia, is also of larger proportions and more generous spirit than those which have been transported to other countries. Instead of the dejected air, pinched dimensions, and half-starved appearance of the degenerate ass of Europe, the ass of Persia and Syria approaches nearer to the size of a horse, and partakes much of his beauty of form, noble carriage, and great speed. The *Dziggetai* (*E. hemionus*) is intermediate between the two former species, and has remained in a wild state ; it inhabits in large troops the great central deserts of Asia, and is probably the animal mentioned by ancient writers as the wild mule. It runs almost with the rapidity of lightning, carrying its head erect, and snuffing up the wind ; its air is wild and fiery, and the fleetest courser that ever scoured the desert would in vain attempt to overtake it.

The *Peacock* (*Pavo cristatus*) is the most magnificent of the whole feathered creation. It was introduced into Europe from the south of Asia more than 2,000 years ago. It lives about 20 years, and does not acquire its beautiful plumage till 3 years of age.

The *Golden Pheasant* (*Phasianus pictus*) is a very beautiful bird, about 3 feet in length ; its plumage is variegated with tints of gold, orange, green, yellow, black, white, and crimson. It is a native of China. The *Common Pheasant* of Europe is a native of Persia, and is still found there in a wild state. The *Silver Pheasant* (*P. nycthemerus*) and *Collared* or *Ring-necked Pheasant* (*P. torquatus*) are also indigenous in China. The most valuable of our domestic fowls, the common cock and hen (*Gallus domesticus*)



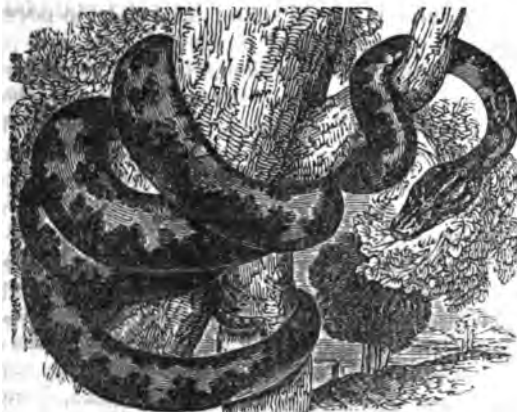
Peacock.

*Golden Pheasant.**Ring-necked Pheasant.*

came from Asia, and the race is found wild in the woods of India. The *Jungle Cock* (*G. Sonneratii*), a very beautiful species of this genus, is extensively spread through India, inhabiting the thick jungles, where its shrill voice may be continually heard resounding through the brakes and thickets.

There are a multitude of other birds in Asia, many of which are remarkable for their rich plumage or their pleasing songs. Some of the spicy groves are the haunts of large flocks of parrots, cockatoos, and other gay birds, which impart peculiar splendor to these regions of perpetual summer.

The *Anaconda* is most common in Ceylon, and is one of the most terrible of all reptiles. It

*Anaconda.**Pearl Oyster.*

is of sufficient size and strength to destroy an ox or a tiger. The *Great Boa* is sometimes 30 feet in length.

The *Pearl Oyster* is found in great abundance on the west coast of Ceylon, where a valuable pearl-fishery is carried on. The divers descend to the bottom by the weight of heavy stones, and bring up the oysters in baskets. The fisheries are rented yearly. They employ above 6,000 men, and have sometimes yielded 850,000 dollars in a single year.

Where the bed is rich, a diver often puts upwards of 150 oysters into his basket at one dip; when they are thinly scattered, sometimes no more than 5. After diving, a small quantity of blood usually issues from the nose and ears, which is considered as a favorable symptom, and they perform the operation with greater comfort after the bleeding has commenced. They seem to enjoy the labor as a pleasant pastime, and never complain of fatigue, unless the banks

are poor in oysters. Two divers are attached to each stone, and go down alternately. The period allotted for this operation continues from 5 to 6 hours.

15. *Tribes of Asia.* Were we to arrange the population of Asia into classes distinguished



Inhabitants of Asia.

by color, we should say that 3 races of mankind inhabited this continent; the White, the Yellow, and the Black. The latter are few in number; and we may therefore consider the 2 other as dividing this part of the world between them. The white race occupy nearly the whole of Western Asia; the yellow race inhabit the rest. In some instances the 2 races have become blended together, and it would be difficult to say to which race their descendants belong. In the white

race we would class all the Caucasian tribes, the population of Asiatic Turkey, of Arabia, of Kurdistan, of Persia, of Afghanistan, the Bucharians, Armenians, Georgians, Turcomans, Uzbeks, Kirghis, the Hindoos, the inhabitants of Nepaul, of Ceylon, and the Maldives, and several tribes of Asiatic Russia, such as the Yakutes, the Voguls, the Permians, the Syrians, the Tchouvaches, the Morduins, and the Ostiaks of the Obi. The yellow race would comprehend the Calmucks, the Khalkhas of Central Asia, the Samoiedes, the Lamutes, the Youkaghirs, the Tchuktchis, and the Koriaks, all of Asiatic Russia; the Mongols and Tongouses, who live as nomades, in Asiatic Russia and China; the Mandshous, the Coreans, the Japanese, the Chinese, the Annamites, the Siamese, the Birmanians, and the Tibetans. The Malays seem to be a mixed race of Whites and Yellows. The Negroes belong to Malacca, Ceylon, Andoman, and Nicobar, and are of the Papuan race.

Hassel estimates the 4 great races of Asia as follows; it must be understood, however, that this embraces the Asiatic Islands, which we include in Oceanica.

Caucasian Race	164,000,000	Malay Race	24,000,000
Mongolian Race	291,000,000	Ethiopian Race	1,000,000

Attempts have also been made to classify the Asiatic nations according to their languages, and the following principal groups have been marked out from this point of view. 1. The Semitic family of nations embraces the ancient Chaldeans, Aramæans, and Phenicians, the Jews, Arabs, and Armenians. 2. The Turkish group comprises the Ottomans or Osmanlis, the Turcomans or Truchmenes, the Uzbeks, Kirghises, the Nogais, the Yakutes, Karakalaks, and several other tribes, improperly called Tartars. 3. The Mongol stock consists of 3 branches, the Mongols proper, the Buriates, and the Celoths, comprising several nations; the Calmucks belong to the last named. 4. The Tungouses consist of numerous branches in Eastern Asia, the most conspicuous of which are the Mantchoos or Mandshous, who are now the ruling race in China. 5. The Persian family comprises the Persians proper or Tadshiks, the Afghans, Kurds, Beluches, the Ossetes, Bucharians, &c. The ancient Zend was probably the mother of all the Persian languages. 6. The Hindoo stock comprises most of the inhabitants of Hindostan, which has, however, been repeatedly overrun by northern tribes, Persians, Turks, &c. 7. The Chinese are the bulk of the population of China, but it is not satisfactorily ascertained, whether this race has any affinity with the Japanese and Coreans, in the east, and the Tibetans, Burmese, Siamese, &c., on the west. 8. The Caucasian group includes the Georgians, Suanians, Mingrelians, &c., but the Lesghians, Circassians, Abassians, and Mtsjekhians, of the same region, seem to be of different origin. 9. The Samoiedes. 10. the Jenisseans. 11. The Fennic tribes, including the Voguls and Ostiaks. 12. The Youkaghirs. 13. The Koriaks. 14. The Tchuktchis. 15. The Kamschadales, inhabiting Siberia, are, perhaps, of distinct stock.

16. *Population.* The population of Asia has already been stated to amount to 400 or 500 millions; but different estimates carry it still higher and lower than those numbers, some making it about 380, and others 600, millions. So of the different countries, the population of China is by some accurate writers reduced to 170,000,000, by others raised to 380,000,000. The following statements must therefore, be looked upon as very uncertain

Chinese Empire	350,000,000	British Possessions	154,000,000
Japanese Empire	30,000,000	Afghanistan	5,000,000
Annam	12,000,000	Beluchistan	2,000,000
Siam	3,500,000	Turkistan	5,000,000
Birman Empire	6,000,000	Persia	10,000,000
Nepaul	2,500,000	Ottoman Asia	10,000,000
Sinde	1,000,000	Arabia	12,000,000
Sindia	4,000,000	Russian Asia	5,000,000
Seikhs or Lahore	8,000,000		

17. *Religion.* Asia is the land of fable and mystery, and exhibits a deplorable example of the errors into which unassisted reason leads the religious feelings. The Mosaic and Christian religions, the most important truths, have, however, been revealed on its soil ; while there are few extravagances and absurdities that have not sprung up and flourished in the same region, as if to contrast in a more striking manner, human folly with divine wisdom. The absurdities of the Sabæans, the worship of fire and other elements, Mahometanism, which has mixed some great truths with its errors, the polytheism of the Buddhists, the Bramins, the Lamasists, the worship of heaven and of the dead, of spirits and demons, and cruel, degrading, and loathsome rites, and doctrines of the most absurd nature, have found followers and respect in this land of superstition. Buddhism is the religion of the greatest number of inhabitants, prevailing over all of Asia beyond the Ganges, and over a great part of Central Asia. Mahometanism is the most widely diffused, but its followers are not so numerous ; it is professed by the great body of the people of Western Asia ; Bramanism is predominant in India. Buddhism numbers about 170,000,000 followers ; Bramanism 60,000,000, and Mahometanism about the same number. Any statements as to the numbers of the different religions must partake of the uncertainty of the estimated population. If the larger estimates are assumed for the population then we should, perhaps, state the Buddhists at about 300,000,000, and the Braminists about 100,000,000, the Mahometans at 70,000,000, or 80,000,000, and the Christians at 15,000,000.

18. *Government. Civilization. Social State.* We must not attribute to the climate alone the immutability of national character and institutions, which we observe among the Asiatics, whether wandering nomades or the docile subjects of great empires. Despotism, both in the patriarchal and the monarchical form, has long been the reigning species of government throughout Asia, and has exercised its full influence in taming the spirit and cramping the energies of her children. Superstition has also long reigned with unmitigated sway over the Eastern and Southern parts of Asia ; and polygamy deprived society of some of its most endearing ties and humanizing influence. Malte Brun, in endeavoring to explain why great empires are more common in Asia than in Europe, remarks : " It is not enough to say, that the great plains with which Asia abounds give the conquerors an easier access. This only holds good in the central parts ; but how many inaccessible mountains, how many large rivers, and immense deserts, form the natural bulwarks and eternal barriers of other Asiatic nations ! When once an Asiatic nation profits by its local circumstances, it is as difficult to be conquered as any European people. The Druses, the Koords, and the Mahrattas, are not the only examples ; we can quote one still more illustrious. The chain of Mountains of Assyria to the northeast of Babylon, which Alexander had no difficulty in passing, became a bulwark for the empire of the Parthians, before which the legions of Trajan himself were routed."

The great conquests in Asia have arisen from another cause, and that is, the great extension of the same nations. The capitals of Hindostan, of China, or of Persia, being given up to one conqueror, the immense multitude of tribes, connected by speaking the same tongue, mechanically submit to the same yoke. These great empires having been once established, the succession of one to another becomes almost perpetual, from reasons purely moral and religious. The nations of Asia, too numerous and too disseminated, do not feel the ardor and energy of true patriotism ; they furnish their chiefs with troops, but without zeal or energy, and they change their masters without regret, or without much struggle. The Asiatic sovereigns, shut up in their seraglios, oppose only a vain show of resistance to the audacity of the conquerors, while the latter are scarcely seated on the throne, before they give way to the same effeminacy, which procured the downfall of their predecessors.

The organization of the armies, which are composed chiefly of cavalry, and the want of strong places, open the road to sudden and rapid invasions. Everything combines to facilitate the total and frequent subjugation of those vast empires of the East. But this state of things is so little founded upon the physical geography of Asia, that we now see India divided into more than 100 sovereignties, — Persia in part dismembered, — and Turkey in Asia ready to

~~fall~~ in pieces. Ancient history informs us, that all the regions of Asia were originally divided into numerous small kingdoms, in which the will of the monarch found limits in the rights of the nation. Asia has seen several republics. The resistance which Tyre and Jerusalem opposed to the conquerors of the world, was not owing, as Montesquieu says, "to the heroism of servitude." The Persians of Cyrus were not slaves. The Scythians spoke the language of independent men to the conqueror of Darius.

The astonishing rapidity of political revolutions in Asia, arises, however, out of one fact which is really dependent on its physical geography. "In that part of the world," says Montesquieu, "weak nations are opposed to strong; people warlike, brave, and active, border upon those who are effeminate, idle, and timid; the one must necessarily be conquerors, and the others conquered. Here we have the principal reason of the liberty of Europe, and the slavery of Asia." It is necessary to combine this just remark with another truth, proved by physical geography, namely, that Asia has no temperate zone, no intermediate region between very cold and very hot climates. The slaves inhabit the hot, and the conquerors the elevated and cold regions. The latter are the Tartars, the Afghans, the Mongols, the Mantchous, and others, comprised under the name of Tartars by the moderns, and Scythians of Asia by the ancients. Here we find a totally different physical and moral nature; courage animates their strong and powerful bodies; they have no sciences, no fine arts, no luxury; their savage virtues are unpolished, morality is written upon their hearts; hospitality to strangers, honor to an enemy, and a fidelity wholly inviolable to their own nation and friends. To counterbalance these good qualities, they are addicted to war, or rather pillage and a wandering life, and live almost in a state of anarchy.

Such were the Scythians; such are the Tartars. They defied the power of Darius; they gave a great and sublime lesson to Alexander the Great; they heard from a distance the victorious arms of Rome, but they did not feel their pressure. More than 20 times they conquered Asia and Eastern Europe; they founded States in Persia, in India, in China, and in Russia. The empires of Tamerlane, and of Ghengis-khan, embraced the half of the ancient continent. That vast nursery of nations appears to be now exhausted; few of the Tartars remain nominally independent; but they are still the masters of China, and rather the allies and vassals, than the subjects of Russia. For the present state, political institutions, and history of the different Asiatic nations, we must refer our readers to the respective accounts of the different countries.

CHAPTER LIX. ASIATIC RUSSIA.

1. *Boundaries and Extent.* The Asiatic dominions of Russia are bounded on the north by the Arctic Ocean; east by Behring's Strait, the sea of Okotsk, and the Pacific Ocean; south by the Chinese empire, Turkistan, Persia, the Caspian Sea, and Ottoman Asia; and west by the Black Sea, and the Ural River and Mountains, which separate it from European Russia. They extend from lat. 38° to 78° N., and from long. 36° E. to 171° W., having an area of 5,350,000 square miles, with a population of about 4,000,000 inhabitants.

2. *Mountains.* The *Ural Mountains*, on the western frontier, stretch from north to south for a great distance, but nowhere attain a very great elevation, the highest summits not exceeding 5,200 feet in height. The *Altai Mountains* stretch from east to west along the southern frontier, forming in part the boundary between the Russian and Chinese empires. This chain surrounds the sources of the Irish and the Yenisey, under the name of the *Sayanian Mountains*; further east it extends in a northeasterly direction along the western coast of the sea of Okotsk, under the name of the *Stanovoy Mountains*, and traverses the peninsula of Kamschatka, where it presents a series of active volcanoes. The highest summits of this great mass of mountains are from 10,000 to 12,000 feet, except some of the summits of Kamschatka, which have been lately ascertained to exceed 20,000 feet in height. Between the Caspian and Black seas are the *Caucasian Mountains*, rising to an elevation of from 15,000 to 18,000 feet.

3. *Rivers and Lakes.* The *Ob* or *Oby* rises in the Altai Mountains, becomes navigable in the government of *Tomsk*, receives the *Irtish*, a large, navigable river, 1,600 miles in length, and enters the Arctic Ocean after a course of 2,400 miles. The *Yenisey*, the largest river of

the eastern hemisphere, also rises in the Altaian chain, in the Chinese empire, passes through Lake Baikal, and, taking a northerly direction, flows into the Arctic Ocean ; it is about 2,700 miles in length. The *Lena* also rises in the same mountains, and empties itself into the same sea, after receiving numerous large tributaries, during a course of upwards of 2,000 miles. The *Kolyma*, the *Anadyr*, and the *Kamschatka* are also large rivers. The *Kur*, which receives the *Araxes*, flows into the Caspian Sea. The *Ural*, which also flows into the Caspian Sea, rises on the eastern declivity of the mountains of the same name, and has a course of about 1,500 miles. Of the lakes the principal is *Lake Baikal*, which is the largest in Asia, being upwards of 400 miles long and from 15 to 50 broad ; it is of great depth, but contains numerous shoals.

4. *Steppes*. The whole of the northern part of the country, from the Ural to the ocean is a vast steppe, or level desert, interspersed with extensive marshy tracts, and some productive districts. Similar levels are found in the southwestern part, but of inferior extent.

5. *Minerals*. Gold, silver, platina, diamonds, and other precious stones, with iron, lead, and copper are found in the Ural and Altai Mountains. Salt is found in abundance in the steppes.

6. *Climate and Vegetation*. The northern portion of Siberia experiences extremely rigorous winters and short summers, and the earth is perpetually frozen below the vegetable mould that overlies the surface. The cold is here so intense, that 72° below zero of Fahrenheit is not very unusual, and it has been known as low as 120° ; birds and animals, as well as man, perish beneath this dreadful temperature, their very blood being frozen in their veins. The great rivers of these dreary plains are not, like the streams of happier regions, destined to fertilize the fields through which they flow, and convey their rich produce to bordering kingdoms. But these "solid floods" roll their sluggish mass through frozen tracts and end in a sea bound in chains of perpetual ice.

In a country like this the vegetable species are few, and their forms are of the most stunted description ; whole districts are covered with coarse rushes, dwarf birches (*Betula nana*) and willows, and arctic brambles. But as we proceed south to somewhat milder regions, the country is clothed with forests of birches (*Betula alba*), larches, and pines, among which are the Cembra pine (*P. Cembra*), reaching the height of 120 feet ; the Siberian fir (*P. Sibirica*), and the spruce (*P. abies*). To these succeed maples, balsams, aspens, and poplars, but beeches, oaks, limes, ash, and other hardwood trees, are wanting. Great numbers of gentians, especially *Gentiana algida*, with its blue and white blossoms, large patches of the yellow *Rhododendron chrysanthemum* and the purple *R. dauricum*, with quantities of other pretty flowers, fill the meadows and open country. Lilies are abundant, and in Kamschatka their bulbs are used for food ; rhubarbs are also found. The cereal grains are cultivated only in the southern parts of Siberia ; wheat is raised with difficulty in any portion, but oats, rye, barley, and buckwheat, supply its place.

The government of Caucasia, and in general the southwestern parts of this extensive region, are exceedingly fertile, more from nature than industry. The parts that are cultivated produce excellent fruit of almost all the kinds known in Europe, especially grapes, which are reckoned the largest and finest in the world. The summers are very dry, and, from the end of July to the beginning of October, the air is corrupted, and the crops sometimes ruined, by immense quantities of locusts.

7. *Animals*. The animal kingdom is distinguished by the same paucity of species as the vegetable world. Yet, even in the bleak regions of the polar shores, that beneficent Providence which presides over nature, has furnished means of support and protection against the climate to various animals. That severity of cold, which would otherwise be fatal to animal life, is guarded against in some measure by a thick coat of fat and unctuous substances ; in others by skins and furs, much richer, softer, and more beautiful than those which clothe the tenants of milder regions. The substances, which communicate to these classes of animals the power of resisting the fiercest colds of the north, become, with a little preparation, eminently useful and ornamental to man ; the midnight gloom is enlivened, and the pomp of kings derives one of its most splendid decorations from commodities furnished by the shivering hunter of the polar desert. The reindeer, elk, polar bear, wolf, fox, marmot, the martin, ermine, and other animals common to Europe or North America, have already been mentioned under those heads. Various species of lemmings, mice, and hamsters, are more confined to Siberia. The economic mouse (*Arvicola oeconomus*) deserves a particular notice. This little creature forms burrows

with great skill, the principal chamber sometimes having above 20 different entrances; adjoining this are several other rooms, in which it deposits its winter stores, as in granaries; these stores it will not touch until compelled by the approach of the cold season, when, with its mate, it retires to its well-stored dwellings, and enjoys the fruits of its industry. Numerous species of seal, as the *Greenland seal* (*Phoca Grælandica*), the *sea-bear* (*Otaria ursina*), and *sea-lion* (*O. jubata*), throng the Arctic Sea; the *Baikal seal* (*P. Bothionica*) is found in the lake of that name. An immense species of *elephant*, now extinct, formerly belonged to Siberia, and enormous tusks are found, sometimes weighing 600 pounds. The remains of these huge creatures are so abundant, that ivory forms an important article of export.

The animals of the Caucasian regions are, the *caracal lynx*; *chamois* and *ibex goats*, *bears*, *antelopes*, a *tiger* of an unknown species, the *bison*, long extinct in Europe, the *wild sheep* (*Oris Ammon*), &c.

8. *Divisions.* The country between the Caspian and Black seas, called by geographers the Caucasian region, is politically divided into 12 provinces, and several districts which are only nominally dependent upon the Russian government. The vast region to the east of the Ural Mountains is known geographically under the name of Siberia, but is politically divided into the four governments of Tobolsk, Yenisseisk, Tomsk, and Irkoutsk, the two provinces of Omsk and Yakoutsk, the two districts of Okotsk, and Kamschatka, the land of the Kirghises, and the land of the Tchukchi.

9. *Towns.* *Tiflis*, the capital of Georgia, is a handsome town with spacious streets and squares, large barracks and caravanseries, and some elegant public buildings. It has 20,000 inhabitants. *Erivan* is the capital of Armenia, a Persian province lately conquered by Russia. It suffered much during the war, but has 12,000 inhabitants, and is the residence of the Armenian patriarch. *Chamaki*, the capital of Shirvan, and formerly a great commercial emporium of this part of Asia, has about 15,000 inhabitants.

Tobolsk, on the Irtysh, is, like the other towns of Siberia, built chiefly of wood, and is liable to be inundated by the river. The streets are covered with thick planks. The population is about 25,000, engaged in carrying on an extensive trade, and manufactures of leather, soap, and surgical instruments. In the spring the Russian traders arrive here on their way to the remote regions of Siberia, and in the autumn return hither to wait till the weather enables them to transport their goods on sledges into Europe. Caravans of Calmucks and Bucharians also spend the winter here. *Irkoutsk* is the chief place of Eastern Siberia, and is a large town with 25,000 inhabitants. Its manufactures, its learned institutions, and its active commerce give it a European appearance.

Kiakta, upon the Russian frontier, is a place of much trade and great wealth. *Yakoutsk*, with 3,000 inhabitants, carries on the fur trade to a great extent, and has several important fairs. *Tomsk*, capital of the government of the same name, is situated upon the great route to China, and has an active trade, with some manufactures. Population, 10,000. *Kolyvan*, a small town in the same government, is the centre of a rich silver mine district. *Okotsk*, capital of the district of the same name, and *Petropolsk*, capital of Kamschatka, are small towns with about 1,000 inhabitants.

10. *Industry.* The whole country is thinly peopled, and in many parts inhabited only by rude tribes of hunters or fishermen, or occupied by wandering shepherds. The manufactures are few and inconsiderable, and agriculture is little attended to, but the trade with China, Turkistan, Persia, Turkey, and European Russia, is active and important.

11. *Islands.* The sea which separates the southern point of the peninsula of Kamschatka from Japan, contains a number of islands, in a position from northeast to southwest, which are called the *Kurile Islands*. They are upwards of 20 in number, are all mountainous, and in several of them are volcanoes and hot springs. The principal of these islands are inhabited; but the small ones are unpeopled. They differ much from each other, in respect both to their situation and natural constitution. The forests of the northern isles are almost entirely composed of pines; those in the southern, produce canes, bamboos, vines, &c. In some of them are bears and foxes. Sea-otters appear on the coasts of all these islands, as well as whales, sea-horses, seals, and other amphibious animals. Some of the inhabitants of these islands have a great likeness to the Japanese, in their manners, language, and personal appearance; others very much resemble the Kamschadales. The northern islands acknowledge the sovereignty of the emperor of Russia; but those of the south pay homage to Japan. The Kurilians display

much humanity and probity in their conduct, and are courteous and hospitable. They are chiefly employed in hunting, taking sea-animals and whales, and catching fowl.

Between the eastern coast of Kamschatka and the western coast of America, are various groups of islands, divided into four principal groups, the first two of which are called the *Alexian Islands*. The first group, which is called by some of the islanders Sassignam, comprehends, 1. Behring's Islands, which is 90 miles in length, and 25 in breadth; 2. Copper Island; 3. Otma; 4. Samyra, or Shemyia; 5. Anakta. The second group is called Khao, and comprises Immak and 7 other islands. The third general name is *Negho*, and comprehends the islands known to the Russians under the name of Andreanoffski Ostrova, 16 of which are mentioned by geographers. The fourth group is called *Kavalang*, and also includes 16 islands, which are denominated Lyssic Ostrova, or the *Fox Islands*.

Some of these islands are only inhabited occasionally, and for several months in the year, and others are very thinly peopled; but some have a great number of inhabitants, who constantly reside in them. Copper Island received its name from the copper which the sea throws upon its coasts. The inhabitants of these islands are in general of a short stature, with stout, robust limbs, but free and supple. They have lank, black hair, and little beard, flattish faces, and fair skins. They are for the most part well-made, and of strong constitutions, suited to the boisterous climate of their isles. The Fox Islands are so called from the great number of black, gray, and red foxes with which they abound. The dress of a native consists of a cap, and a fur coat which reaches down to the knees. Some of them wear common caps of a parti-colored bird-skin, upon which they leave part of the wings and tail. On the fore part of their hunting and fishing caps, they place a small board like a screen, adorned with the jaw-bones of sea-bears, and ornamented with glass beads, which they receive in barter from the Russians.

12. *Inhabitants.* This vast country contains more than 100 tribes, differing in manners, language, and religion. The Russians, Cossacks, and other settlers from Europe are chiefly in the towns and military stations. There are many Tartars, and colonies of them north of the Caspian and the Caucasus. The Calmucks are perhaps the most peculiar race in the empire. They are of a dark color and athletic form. They have high cheek bones, small eyes, distant from each other, and enormous ears. There are some tribes of Monguls and Manshurs, or Mantchoos. The latter are a branch of the Tungooses, occupying the central parts of Siberia, about a third of the whole. In the northern regions, there are Finns and Samoieds; the latter are short in stature, seldom exceeding 5 feet, and often but 4. They have short legs, large, flat heads, wide mouths, large ears, small, angularly-placed eyes, and black and bristly hair. Their complexion is an olive. The Yakouts are a large tribe on the river Lena. The Georgians and Circassians are a well-formed race of men, and the females are renowned for beauty.



Circassians.

They have fair complexions, regular features, and commanding forms. The Circassians have slender waists, and these in the men are rendered more so by a light sword-belt, which they constantly wear. Besides these tribes or people, which are a small part of the whole, there are many foreigners, as Germans, Poles, Swedes, Armenians, together with a few Hindoos, Gypsies, and Jews.

The form of dress is nearly as various as the people. In the northern countries, it consists for a great part of the year in furs, while the Calmucks have scarcely any clothing but a strip of cloth about the waist. The dress of the Tartars is chiefly a striped silk and cotton shirt, a short tunic, and over this a caftan or eastern robe, girded with a sash. Short boots and loose drawers are worn. In summer, the head is covered with a turban; in winter, with a helmet of wood. All Tartars shave their beards. The

languages are various, and that of Georgia is radically different from all others. The dwellings are of almost every form, though there is little good architecture. In Siberian towns, the Russian mode of building is somewhat followed. The Tartars have neat cottages, whitewashed, and with gardens attached. The Tungooses dwell in tents. The Kamschadales live in villages, built like those of Russia. Many Georgians dwell in huts half sunk in the earth, and the Circassians in cottages of wood and plaited osiers. The food is different in various parts. In Siberia, fish forms a great article of food. The Tartars eat the flesh of horses, or whatever

they can the most easily obtain.* All of the Tartar race make use of *Koumiss*, the spirit drawn from mare's milk.

The courtship of the Calmucks is a horse race. The lady whose good will is solicited, is mounted on horseback, and the wooer follows. If he is favored, he is permitted to overtake :

if not, whip and spur are vain, for the lady is too good an equestrian, and has too much at stake, to be overtaken. Among the Crim Tartars, courtship and marriage are cumbered with ceremonies. The parties seldom see each other till the ceremony, and the contract is made with the heads of the tribe. At the period of the wedding, the villages near are feasted for several days. Much ceremony is used in preparing the bride, who is bound to show every symptom of reluctance. There is a contest between the matrons and girls for her possession. The priest asks the bride if she consents, and



Tartar Wedding.

on the affirmative, blesses the couple in the name of the prophet, and retires. There is a great ceremony and cavalcade, when the bride is carried to her future home. She is carried in a close carriage, under the care of her brothers, while the bridegroom takes a humble station in the procession, dressed in his worst apparel, and badly mounted. A fine horse, however, is led for him by a friend, who receives from the mother of the bride a present of value, as a shawl. There are not many facilities for traveling in any part of Asia. In the Russian possessions, however, posts are generally established ; and in Kamschatka, they are supplied, instead of horses, with dogs. In Siberia, there are few inns, and the traveler finds money to be an incumbrance. The generous hospitality of the people not only supplies his wants in food and clothing, but he is feasted as though he were a long absent relation. The diseases most general or fatal are scurvy, smallpox, fevers, and the most of the common maladies of other countries.

* Cochrane relates the following instances of what he represents as a general voraciousness :

" At Tabalak, I had a pretty good specimen of the appetite of a child, whose age (as I understood from the steersman, who spoke some English and less French) did not exceed five years. I had observed the child crawling on the floor, and scraping up with its thumb the tallow-grease which fell from a lighted candle, and I inquired, in surprise, whether it proceeded from hunger or liking of the fat. I was told from neither, but simply from the habit, in both Yakuti and Tongousi, of eating whenever there is food, and never permitting anything that can be eaten to be lost. I gave the child a candle made of the most impure tallow, — a second, — and third ; and all were devoured with avidity. The steersman then gave him several pounds of sour, frozen butter ; this, also, he immediately consumed ; lastly, a large piece of yellow soap ; all went the same road ; but as I was now convinced, that the child would continue to gorge as long as it could receive anything, I begged my companion to desist.

" As to the statement of what a man can or will eat, either as to quality or quantity, I am afraid it would be quite incredible ; in fact, there is nothing in the way of fish or meat, from whatever animal, however putrid or unwholesome, but they will devour with impunity ; and the quantity only varies from what they have, to what they can get. I have repeatedly seen a Yakut or a Tongous devour forty pounds of meat in a day. The effect is very observable upon them, for from thin and meagre-looking men, they will become perfectly pot-bellied. Their stomachs must be differently formed from ours, or it would be impossible for them to drink off at a draught, as they really do, their tea and soup scalding hot (so hot, at least, that a European would have difficulty in even sipping at it), without the least inconvenience. I have seen three of these gluttons consume a reindeer at one meal ; nor are they nice as to the choice of parts ; nothing being lost, not even the contents of the bowels, which, with the aid of fat and blood, are converted into black puddings."

13. *Character, Manners, &c.* Among a people so various as the inhabitants of Asiatic Russia, there must be great diversity, and opposition of manners and customs. In some of the towns of Siberia there is considerable intelligence. There is in all great hospitality and much social intercourse, and the provinces are better residences than Central Russia. It is remarked, that no government banishes fools; and it may be added, that many of the exiles in Siberia, are banished only for their virtues. The effect of these is seen in the state of society. The gayety of the Siberians is somewhat rude; but their hospitality is deserving all commendation. The Tunguses occupy nearly a third of Siberia. They are hospitable, improvident, honest, and faithful to their word. They bear privation with wonderful endurance, and when they are forced to kill a reindeer for want of food, they refrain till they have fasted a week or more. They are filthy in the extreme. They smoke and drink spirits whenever they can obtain them. The Yakouts are quick and observing. Many of the Tartars and Calmucks are nomades. The appearance of the latter is athletic but revolting. They are cheerful and much given to equestrian exercises, and the women ride better than the men. The Samoieds live without rulers, and have no words to express virtue or vice. It is not probable, however, that they are without either quality. The Kamschadales are in a great degree independent, honest, and veracious. The Georgians and Circassians are a rude people, addicted to violence. The latter live in a feudal state, in which the princes are paramount, the nobles next in authority, and the main body of the people serfs. The princes give their children to the nobles to be educated, and seldom see them till they are of age. The Circassians carry the principle of revenge to an unlimited extent. Blood for blood is so far the practice, that the innocent are involved with the guilty, and the duty of redressing an injury is hereditary. The amusements of all these different nations are various. Almost all of them, however, have the game of chess, and all practise dancing. Of the religions, perhaps Mohammedan is the most general, and after that Christianity, Lamaism, and Buddhism. Paganism is, however, as extensive as any of these. The Yakouts have a corrupted Shamanism; and they worship principally the sun and fire. The form of Christianity is that of the Greek, or of the Armenian church.

14. *History.* Siberia can hardly be said to have a history of its own, but the few notices which relate to it, record the conquests or discoveries of its foreign masters. Toward the close of the 16th century, a band of Cossacks fled into these then unknown regions from the arms of Russia, and reduced some of the native people, but, being obliged to submit to the supremacy of Russia, his conquests only served to enlarge the domains of that power. In about 50 years the Russians pushed across the continent to the Pacific Ocean, which they reached in 1639, and having afterward explored those seas, sailed up between Asia and America into the Arctic Ocean. Their conquests on the Caucasus are of later date. Georgia, formerly a powerful kingdom, had been reduced by Persia to a state of dependence, but, having revolted and sought the protection of Russia, the latter took advantage of this circumstance to remove the hereditary princes from the throne, and to reduce the country to a Russian province. In 1828, Persia was obliged to cede Erivan and Nakshivan to Russia, which has also recently wrested several districts from the Ottomans. The Caucasian tribes still make a vigorous resistance; and the authority of the Russians is limited to the country occupied by their armies.

CHAPTER LX. TURKISTAN, OR INDEPENDENT TARTARY.

1. *Boundaries.* This extensive region, which is about 900 miles from north to south, and 700 from east to west, is bounded north by the Russian empire; east by the Chinese empire; south by Cabul and Persia, and west by the Caspian Sea. It lies between latitude 36° and 51° north, and longitude 50° and 72° east.

2. *Deserts.* The northern part of the country is an immense desert, extending into Russia; the western part, lying between the Oxus and the Caspian, is also a desert, called the desert of Karasm. The district in the southeast, extending from the Belur Tag Mountains to the sea of Aral, and watered by the Oxus, the Sihon, and their numerous tributaries, was well known to the ancients for its delightful climate, its fertile soil, and dense population. The Arabian geographers describe it as the paradise of Asia, and were never weary of expatiating in its praise. It was represented as filled with splendid cities, and the populousness, was said to be such that an army of 300,000 horse, and the same number of foot could be drawn from it without the country suffering by their absence. This tract is now called Great Bukharia.

3. *Rivers and Lakes.* The rivers of this region all find their way into inland lakes or seas. The *Orus*, *Gihon*, or *Amou*, the largest river of the country, rises in the Beloor Mountains, and flows through a fertile tract into the Aral Sea. The *Jaxartes*, *Sir*, or *Sihon*, rises in the mountains of the Chinese empire, and empties itself into the same sea. The *Kuwan*, which traverses Bucharia, and the *Sarassu*, which runs through the land of the Kirghises, also empty their waters into lakes. There is a great number of lakes, among which the *Aral*, usually termed a sea, is the principal. It is, after the Caspian Sea, the largest inland body of water in Asia, being about 250 miles in length, and covering an area of about 10,000 square miles. Its waters are salt, and its shores low and sandy or marshy. It is inhabited by numerous fish and seals.

4. *Divisions.* This region is occupied by a great number of Turkish tribes, forming many independent States; its great geographical divisions are the land of the Kirghises in the north; Turcomania or the country of Turkmans, in the southwest; Turkistan Proper, or the land of the Turcomans in the east, and Usbekistan or the land of the Usbeks, in the south; but these and other tribes are scattered about in various parts of the country. The chief States are the *khanats* of Bucharia, Khiva, and Khokand, after which rank those of Hissar, Balk, &c.

5. *Bucharia.* This country comprises the richest and most populous region of Turkistan, and has an area of 80,000 square miles, with 2,500,000 inhabitants. The ruling people are the Usbeks, a Turkish tribe, but the natives or Bucharians, are of Persian origin, and are found all over Asia, from Russia and Turkey to China, in the capacity of traders.

Buchara, the capital, stands in a pleasant plain, but it is meanly built, with crooked, narrow, and dirty streets, upon which the houses present only a blind wall, their windows being upon inferior courts. The population is about 80,000, of which three quarters are Persians, and the remainder Usbeks, Afghans, Jews, Arabs, &c. The ark or palace of the khan, the 360 mosques, and 60 madrasses or colleges, the vast caravansery, &c., are the principal public edifices; its manufactures and commerce attract merchants from all parts of Asia, and its seminaries, which render it one of the chief seats of Mahometan learning, are estimated to be attended by 10,000 scholars. *Samarcand*, once the capital of the great empire of Tamerlane, although declined from its ancient splendor, still contains 50,000 inhabitants, numerous manufactures of silk, cotton, silk paper, and many learned institutions or madrasses. Here is also the tomb of Tamerlane, built of jasper. *Nakshab* is a large town with 40,000 inhabitants.

The Bucharians are distinguished for their industry, commercial enterprise, and frugality. They traverse all parts of the continent in their trading expeditions, and have even formed numerous colonies in China, Russia, and other parts of Turkistan. Their trade with Russia by Orenburg, with China by Cashgar, Cabul, and Balkh, and with India by Cashmere, constitutes the most important part of their commercial operations. They also excel in the manufacture of cotton, silk, caps, paper, &c. The Usbeks, who have conquered this and the neighboring regions, are a rude and warlike people, who consider war and robbery as the only honorable occupations. They hold the public offices, are the soldiers, &c., and often invade the Persian and Russian territories, carrying off slaves and plunder.

6. *Khiva.* The *khanat* of *Khiva* is the most extensive State of Turkistan, but much of its territory consists of deserts. It has an area of 150,000 square miles, with only 800,000 inhabitants. The dominant people are the Usbeks, who have extended their conquests over the *Karakalpaks* on the *Sir*, the *Aralians* on the *Amou*, and a part of Turcomania. *Khiva*, the capital, in a fertile territory near the *Amou*, has about 15,000 inhabitants; it is the greatest slave market in Turkistan. This country was early converted to Mahometanism, and in the 8th century formed the kingdom of *Kharism*, the dominion of which was widely extended over Central Asia, until it was subverted by Zingis Khan. *Urgunge*, the ancient capital, is now mostly in ruins.

7. *Khokand.* The *khanat* of *Khokand* is inferior to that of *Khiva* in extent of territory but is more densely peopled; its area amounts to 75,000 square miles, with a population of 1,000,000 souls. It comprises the country lying upon the upper part of the *Sir*. Its capital, *Khokan*, upon a tributary of the *Sir*, is a place of much trade, and contains 3 stone bazars, several mosques, the castle of the Khan, &c., with 60,000 inhabitants.

8. *Kingdom of Balkh.* *Balkh*, the capital of an independent *khanat*, is an old city, formerly one of the most wealthy and populous of Asia, but now much reduced, having but 10,000 inhabitants. As the residence of the kings of Bactria, it was the rival of Nineveh and Babylon, the centre of the commerce between the east and the west, and one of the chief seats of eastern

learning. Under the name of Bactria, this country has, from remote antiquity, been celebrated in the annals of the east. Under the auspices of Alexander, a Greek kingdom of Bactria was formed, which continued for several centuries, and even after its fall retained marked traces of civilization. Under the Roman empire, when a commercial route had been opened across Asia as far as China, Bactria was the great rendezvous of the caravans, before entering the bleak regions of Tartary. When Asia yielded to the dreadful sway of the Mongol warriors, Bactria lay in their route across the continent, and suffered accumulated disasters. The city of Balkh is commonly called in the east, the mother of cities.

There are several other khanats of considerable extent; the land of the Kirghises, comprising the central and northern parts of Tartary, is inhabited by numerous small tribes of that people under distinct and independent chiefs; and *Turcomania*, between the Caspian and Aral seas, and the khanat of Khiva, is occupied by similar tribes of Turkmans.

The Kirghises, retiring before the Russians, moved their flocks and tents from the pastoral regions of Siberia to the steppes and wilds north of the Jaxartes and Aral, and east of the Caspian. They are divided into 3 branches of hordes, called the Great, Middle, and Little Horde. The Great Horde ranges to the south and east, and many of its tribes have adopted the habits of those more improved districts, and acquired a fixed and peaceable character. The Middle and Lesser Hordes occupy the shores of the Aral, and the tract extending from the Aral to the Caspian, and in these the original nomadic character is preserved almost entire; they own in some degree the supremacy of Russia, which, however, has to resort to means of conciliation and defence to keep them quiet, making annual gifts to the chiefs, and maintaining a line of strong posts from the Ural to the Irtysh. Still these wild tribes make occasional forays into the more settled districts, and plunder or exact a ransom from the great caravans, which cross their territory. The wealth of the Kirghises consists in horses, goats, the large-tailed sheep, and a few camels. Their tents of felt are larger and neater than those of the Calmucks.

9. *Koondooz*. Between Cabul and Bucharia, to the south of the Oxus, is the little State of Koondooz, ruled by a *Meer* or Usbek chief, who has established his power over all the neighboring districts, and is master of all the upper Oxus and its tributaries. He has reduced Badakshan, and has even sacked the city of Balkh. The town of Koondooz stands in a marshy and unhealthy valley, and is only visited by the Meer in winter; it was once a large town, but is now almost deserted. The long valley of Badakshan, through which the Oxus flows, is celebrated all over the east for its mineral wealth, including iron, salt, sulphur, lapis lazuli, and rubies. *Fyzabad* is the capital of Badakshan. The mountainous tract of Shoghnan, to the west, once gave the name of *Sogdiana* to all this region.

10. *Inhabitants*. The name of Tartar has been incorrectly applied to many of the nomadic tribes of northern and middle Asia. Turks is the name by which they prefer to be called, and many of the tribes are not Tartars. The most common dress among the Turkish Tartars is a calico robe and drawers. Red is the favorite color. Some of the dresses are trimmed with wool. Garments of skins also are sometimes worn.* In a country inhabited by wandering tribes, there are few cities, and costly habitations. Many of the tribes dwell in tents, and the richer individuals in wooden houses so small, that they may be removed in wagons. The Turcomans sometimes have only the shelter of caves. The food is principally drawn from the herds, and from hunting. A little millet is sparingly used. Horse flesh and mutton are preferred to beef and veal. There is much milk, butter, cheese, and koumiss. The manners and customs are those of a people warlike and fierce. The Tartars have neither regular employment, nor settled habitations. They remove with their flocks and herds from place to place. When a Tartar would curse with emphasis, he imprecates upon his enemy a settled abode, and a life of labor, like a Russian. The predatory habits of many of the tribes of this region render traveling very hazardous among them. Caravans are often attacked and plundered on their route by the Turco-Tartar hordes, and the only security in passing through this country is to travel in large numbers and well armed. The Turco-Tartars are distinguished

A late traveler gives the following account.

"I approached (says he) a group of Tartars assembled round a dead horse, which they had just skinned. A young man about 18, who was naked, had the hide of the animal thrown over his shoulder. A woman, who performed the office of tailor with great dexterity, began by cutting the back of this new dress, following with her scissors the round of the neck, the fall of the shoulders,

the semicircle which formed the sleeve, and the side of the habit, which was intended to reach below the knee. She proceeded in the same manner with the other parts, till the cutting out was finished; the man then, who had served as a mould, crouched on his hams, while the several pieces were stitched together, so that in less than 3 hours he had a good brown-bay coat, which only wanted to be tanned by continual wearing."

for their performance of filial duties and reverence for the memory of their fathers. They are



Caravan attacked by the Tartars.

brave, rude, and hospitable. Their chief amusement is in the chase, which inures them to danger and fatigue. The prevailing religion is the Mohammedan, but there are many Pagans. Polygamy is general. Some tribes burn the dead, and cover the ashes in mounds. Others expose the body to be devoured by dogs, from some superstitious belief. The government is that of khans elected over the smaller tribes, and appointed on a few large ones, by the great khan, who styles himself king of kings. The system of laws is principally that of the Koran.

11. History. The Scythians of the ancient world, and the Tartars of modern times, have maintained in all ages an unchanged character. In war, they have always been formidable; their furious inroads, their rapid flight, and their terrible ravages, have always made them an object of terror or anxiety to the bordering countries. The Saracens reduced some of the countries on the Oxus to their sway, in the 8th century, but the Turkish tribes soon after expelled the invaders, overrun Persia, and conquered Asia Minor, where the Seljukian Turks continued to rule for several centuries. In the 13th century, Turkistan was included in the vast empire founded by the great Mongol conqueror Zingis or Genghis Kahn; but in the next century, Timur, or Tamerlane, not only threw off the Mongol yoke, but carried the arms of the Turco-Tartars over Persia, established a dynasty, commonly but erroneously called the Mogul, which ruled over India, and crushed for a time the rising power of the Seljukian Turks in the west. The ruling race of Persia is of Turkish origin. In more modern times, the proper country of the Turks has been partly reduced to a nominal dependence on Russia, is partly included within the Chinese empire, and is partly independent; but, as above described, split up into numerous petty States.

CHAPTER LXI. OTTOMAN ASIA, OR TURKEY IN ASIA.

1. Boundaries and Extent. Asiatic Turkey is bounded N. by the Black Sea and Russia; E. by Russia and Persia; S. by the desert of Arabia, and the Mediterranean; and W. by the Archipelago. It extends from 30° to 42° N. lat., and from 26° to 49° E. long., comprising about 400,000 square miles, with 8,000,000 inhabitants.

2. Mountains. Asia Minor and Armenia are mountainous countries. In Armenia is *Mount Ararat*, 17,300 feet above the sea, and believed by the inhabitants to be the eminence on which Noah's Ark rested. The chain of *Mount Taurus* extends westerly from Armenia, and intersects by numerous branches the greatest part of Asia Minor. Its highest summits have an elevation of from 12,000 to 15,000 feet.

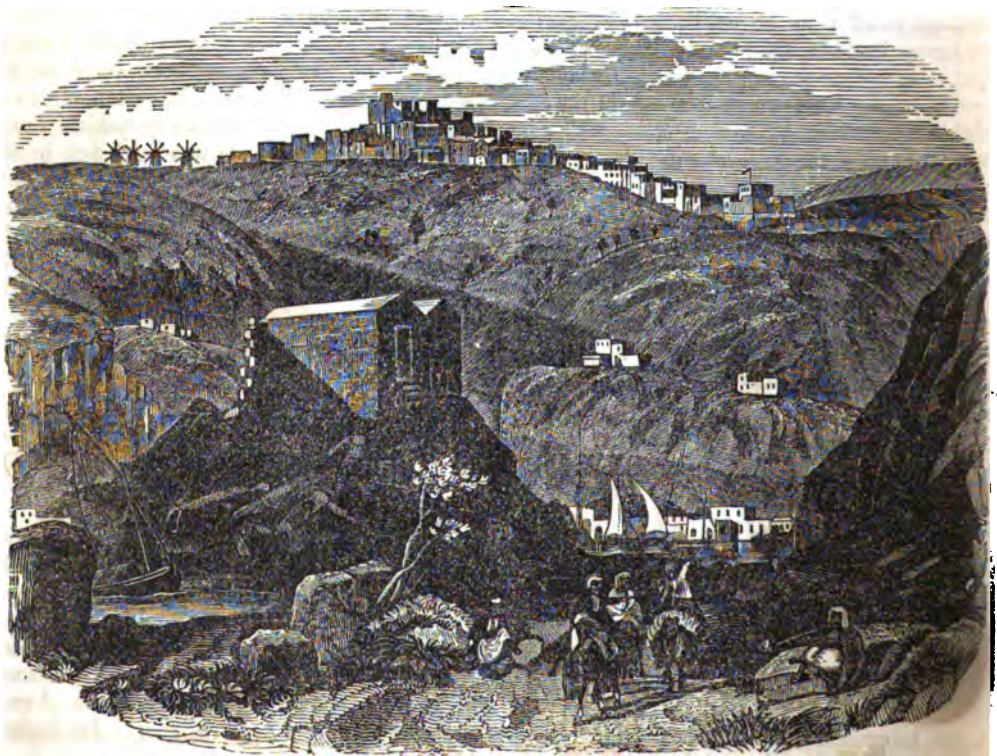
3. Rivers and Lakes. The largest river of this country is the *Euphrates*. It rises in two broad streams in the mountains of Armenia, and breaking through the chain of *Mount Taurus*, flows southeasterly into the Persian Gulf, after a course of 1,300 miles. The *Tigris* is a branch of the Euphrates, rising in the same quarter, and flowing mostly in a parallel direction, till it joins the Euphrates, after a course of 800 miles. The *Kizil Irmak*,



Mount Ararat.

or ancient *Halys*, flow through the central part of Asia Minor northerly into the Black Sea. The *Sakaria* or *Sangarias*, the *Mendres* or *Meander*, and the *Sarabat* are the other most remarkable rivers of Asia Minor. *Lake Van*, in Armenia, is about 200 miles in circuit.

4. *Islands*. On the coast of Asia Minor are many islands celebrated in ancient history. In the north are *Tenedos*, famous in the war of Troy, *Lemnos*, and *Samothrace*. *Lesbos* or *Mitilino* is a beautiful island, with mountains covered with vines and olives, exhibiting a perpetual verdure. It has a population of 30,000. *Scio*, the ancient Chios, formerly renowned for its beauty and fertility, has obtained a mournful celebrity in our own days. The island was devastated by the Turks, and its inhabitants butchered, in 1822. *Samos* is productive in grain and fruit. *Patmos* and *Rhodes* are famous in sacred and profane history. In the former, St. John



Patmos.

wrote the Apocalypse or Book of Revelations, and the Greek monks still pretend to point out the spot where those sublime visions were exhibited to the prophetic soul of the apostle. Rhodes was famous in antiquity as a commercial and naval power, and as the seat of an opulent and refined community. At a later period, the Knights of St. John, when expelled from the

Holy Land by the Turks, took shelter in Rhodes, and long baffled the arms of Mahomet and Solyman by their brilliant courage. But the Turkish sway has long since obliterated all these glories, and Rhodes is now poor and thinly peopled.

Cyprus, the largest of the islands, lies the furthest south ; it is 140 miles long, and 60 in breadth. It is traversed by two lofty mountainous ridges ; and the whole face of the island is so verdant as to resemble an immense flower-garden. It produces vines, olives, lemons, oranges, apricots, and numerous other fruits. Corn and silk are raised, and carpets manufactured. The population is about 80,000.

5. *Climate*. In the mountainous parts, especially in Armenia, the climate is temperate and healthy. In Mesopotamia, it is hot and unhealthy. The Simoom, a poisonous wind of the desert, is common here. This country contains the most fertile provinces of Asia, and produces all the luxuries of life in abundance. Raw silk, corn, wine, oil, honey, fruit of every species, coffee, myrrh, frankincense, and odoriferous plants and drugs, flourish here, almost without culture, which is practised chiefly by the Greeks and Armenians. The olives, citrons, lemons, oranges, figs, and dates produced in these provinces, are highly delicious, and in great plenty. As it was hence, that arts and civilization were carried to other regions, so are we indebted to this and the neighboring countries for some of our most valuable fruits. The walnut and peach are from the tracts bordering on Persia ; the vine and apricot, from Armenia ; the cherry and sweet chestnut, with the fig, the olive, and mulberry, from Lesser Asia ; the melon and cucumber are also indigenous to this soil ; and several of our most ornamental trees and garden plants, the horse-chestnut, lilac, sweet jasmine, damask rose, hyacinth, tulip, several kinds of iris, ranunculus have been borrowed from these favored regions. In the south, there are extensive deserts, where no tree casts a welcome shade ; but the hills and valleys of Asia Minor, are crowned with forests of pine, fir, larch, cedar, beech, various species of oaks, the almond, lentisks, pistachio trees, terebinth, &c.



Melon.



Persian Iris.



Gall Nuts.

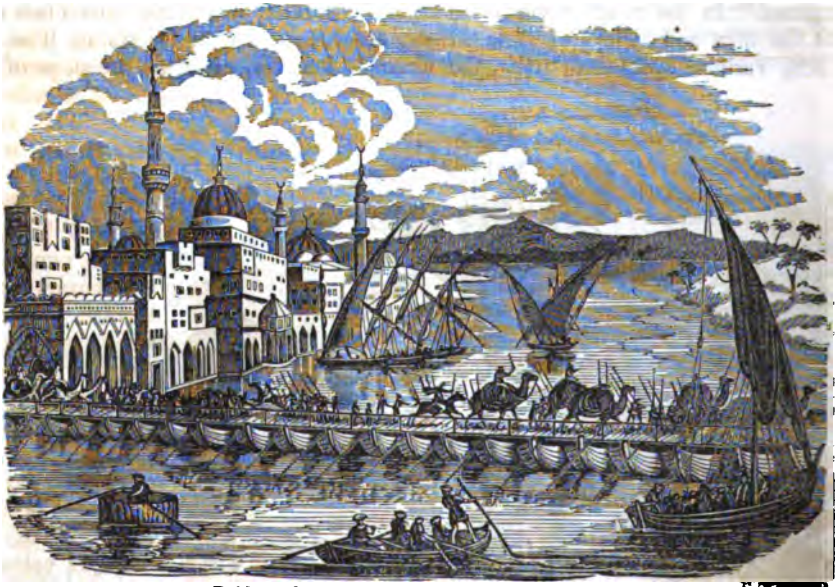
Gall-nuts are the result of a morbid action excited in the leaf-buds of several species of oak, occasioned by an insect depositing its eggs in the bud. The galls of commerce occur chiefly on the *Quercus infectoria*, and vary in size from that of a pea to that of a nutmeg ; the best come from Aleppo and Smyrna.

6. *Minerals.* Silver, copper, and lead are found in Asia Minor and Armenia, iron in Mesopotamia, and salt in various places.

7. *Animals.* The Caucasian goat, which is larger than the common goat, inhabits the Caucasian Mountains and the Taurus. The Angora goat is remarkable for its hair, which curls in long ringlets of 8 or 9 inches in length, and is of a silky texture, and glossy silvery whiteness. Much yarn, spun from it, is exported. The camel is much used here as a beast of burden, and its hair is valuable.

8. *Divisions.* Asiatic Turkey is politically divided into 16 eyalets or pachalics, which are subdivided into sangiacats. But many of the mountaineers and nomadic tribes are only tributaries; others are merely vassals, that is, they recognise the superiority of the Porte; and some are entirely independent. It is not rare for the pachas also to refuse obedience to the orders of the sultan, and to resist his forces. The common geographical divisions, generally used by writers, are Asia Minor or Anatolia, Georgia, Armenia, Kurdistan, and Mesopotamia or Aljesira, with Irak-Arabi. Only a part of Georgia, Armenia, and Kurdistan, belong to the Ottoman empire.

9. *Towns.* *Bagdad*, built upon both banks of the river Tigris, was for some centuries the brilliant metropolis of the caliphate under the Saracens. This city retains few marks of its ancient grandeur. It is in the form of an irregular square, ill-built, and rudely fortified; but the convenience of its situation renders it one of the seats of the Turkish government, and it has still a considerable trade, being annually visited by the caravans from Smyrna and Aleppo, and sup-



Bridge of Boats across the Tigris, at Bagdad.

plied also with the produce of Persia and India. Most of the houses have a court-yard, in the middle of which is a plantation of orange trees. The bazars are handsome and spacious, and filled with shops for all kinds of merchandise. These were erected by the Persians, when they were in possession of the place, as were also the bagnios. The castle, which is of stone, commands the river. Below the castle, by the water side, is the palace of the Turkish governor; and there are many summer-houses on the river, which make a fine appearance. Population, 100,000.

Bassora or *Basra*, which is situated below the junction of the Tigris and the Euphrates, is considered as the second city of the pachalic of Bagdad; but it has greatly declined from its former wealth and importance, though it still has a population of 60,000, who carry on an extensive trade. The houses are meanly built; the bazars are miserable structures; and of 40 mosques only 1 is worthy of the name. The Arabs form the most numerous class of the inhabitants; but the Armenians are the chief managers of the foreign trade. For the merchandise of British India, they chiefly exchange bullion, pearls, copper, silk, dates, and gall-nuts;

and their horses, which are strong and beautiful, are also articles of exportation. *Mosul*, which is situated on a plain near the Tigris, was once a flourishing town; but it is now declining, though it still has about 60,000 inhabitants; among whom, besides Turks, are many Kurds, Arabs, Jews, and Armenians.

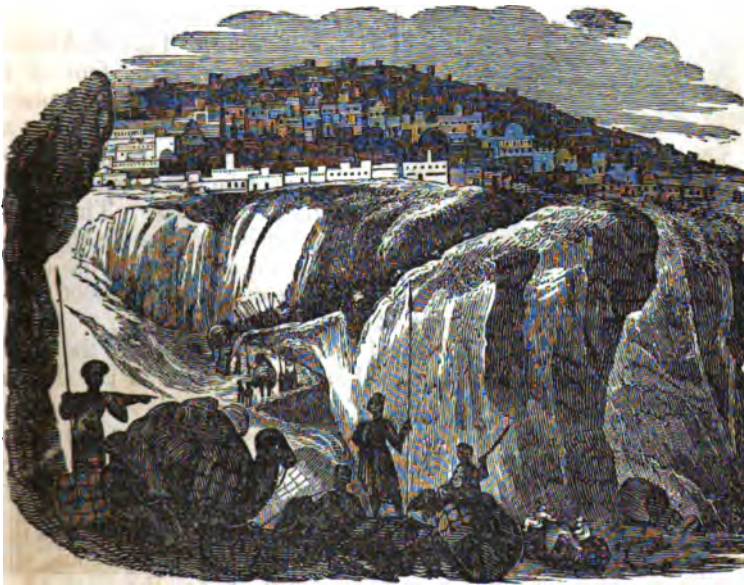
Diarbekir, the ancient *Amida*, formerly the capital of an independent State, is now the seat of a powerful pacha. It is surrounded by a wall, supposed to be a Roman work, famous for

its height and solidity. Many of the houses are handsome, one mosque is magnificent, and the castle is an ornament to the town. Manufactures and commerce are prosecuted with some degree of spirit; and the inhabitants amount to 60,000.

Orfa, in Mesopotamia, is one of the finest cities in this country. It is the ancient *Edessa*, and is supposed to be the *Ur of the Chaldees*, where Abraham dwelt before he came to Haran. The city stands on the slope of a hill, and is 3 or 4 miles in compass. The streets are narrow, but well paved, and tolerably clean. The houses are all of stone and well built, and the city has numerous excellent bazars or markets. A small lake at one extremity of the city supplies it with excellent water. On the bank of this lake stands the *Mosque of Abraham*, the most splendid and regular edifice of its kind in Asiatic Turkey. It is a square building, surmounted by 3 domes, and a lofty minaret rising from amidst a grove of tall cypresses. Every place of consequence in the city bears some relation to the name



Mosque of Abraham.

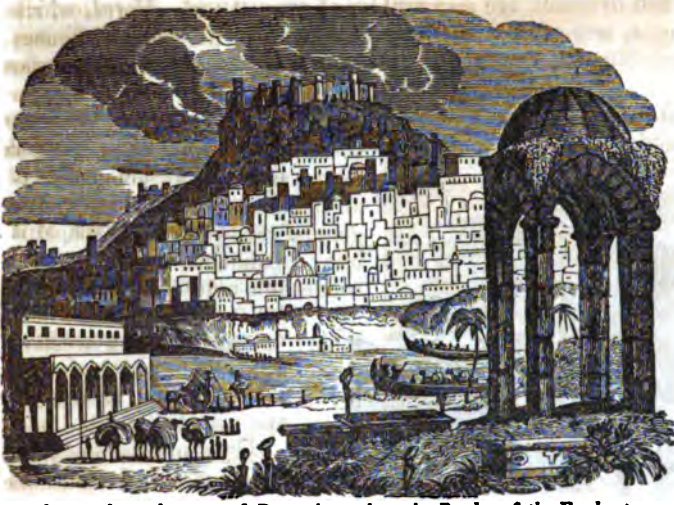


Approach to Mardin.

of Abraham. The inhabitants are well-bred, polite, and tolerant, and the place is said to be the most agreeable residence in all the Turkish dominions. Population, 50,000.

Mardin, in Mesopotamia, is remarkable for its situation. It stands on the summit of a lofty mountain, composed of white limestone. It is approached by a stairway cut in the rock, more than 2 miles in extent. It is a saying of the Turks, that the inhabitants never see a bird flying over their town. It has manufactures of silk and cotton. Population, 20,000.

Beer, in Mesopotamia, stands on the Euphrates, and has a castle commanding the passage of the river. It stands on a mountain full of immense excavations, many of which are fitted up



Approach to the town of Beer, situated on the Banks of the Euphrates.



Babylon.

as khans, or places of abode for travelers. An Armenian church occupies one of these excavations. Population, 15,000.

The country upon the banks of the Euphrates and Tigris, was for centuries the seat of powerful empires, and the centre of the commercial transactions between China, India, Persia, Egypt, and Eastern Europe. Here are still seen the ruins, or rather vestiges of the ruins, of the ancient *Nineveh*, once the largest city of Asia, and the capital of the Assyrian empire; of the magnificent and luxurious *Babylon*, the capital of the Babylonian monarchy and the wonder of the world; of the splendid and sumptuous capitals of the once powerful Syrian, and Parthian empires, *Seleucia*, and *Ctesiphon*. As the soil furnished clay, those cities were built of bricks baked in the sun, and of a perishable nature.

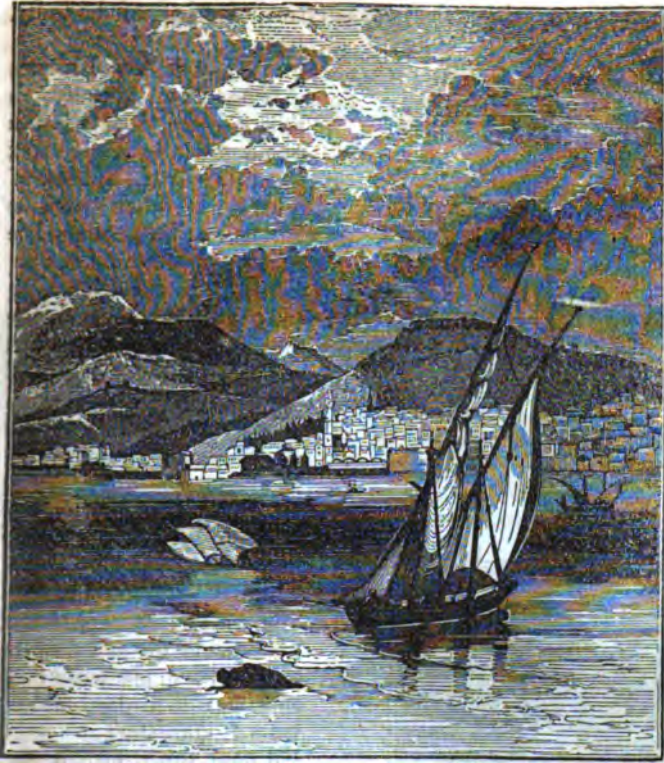
Erzerum, in Turkish Armenia, is situated at the foot of a high mountain, in a large plain near the Euphrates. It has a flourishing commerce and extensive manufactures, with about 100,000 inhabitants. The side-arms made here are in high repute in the east; its vast mosque, capable of containing 8,000 persons,

its bazars, and caravanseries are the most remarkable edifices.

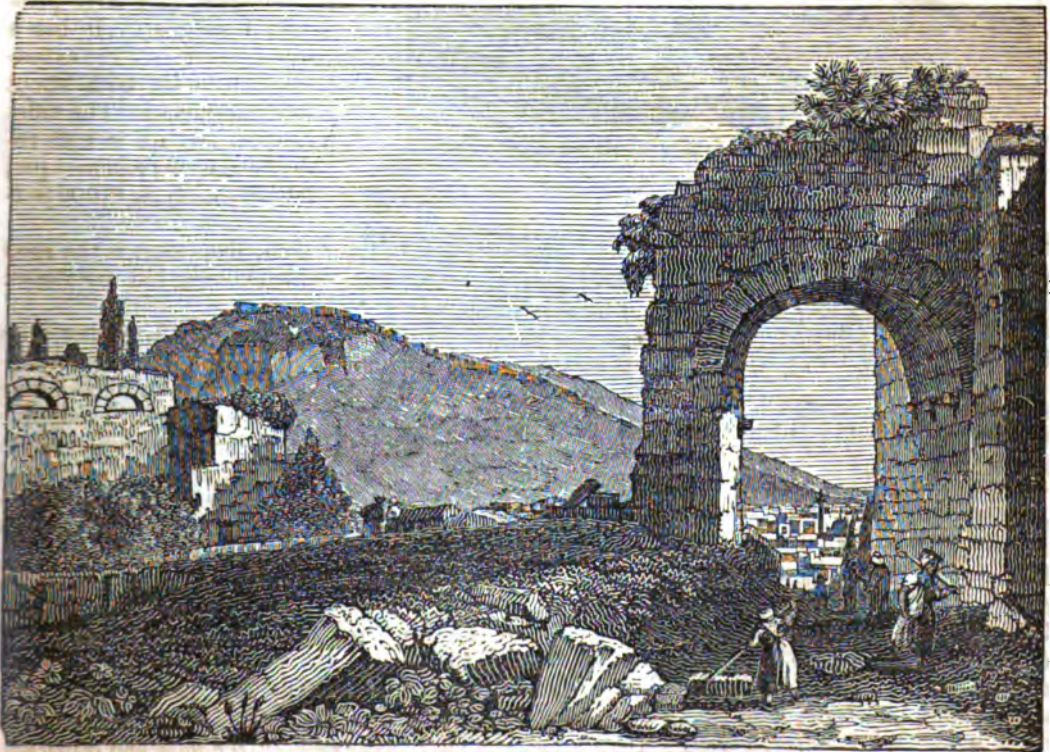
Van, upon the lake of the same name, a strongly fortified and industrious city, is the next most important place in Armenia. It is of great antiquity, and in a neighboring hill are shown vast subterranean apartments, attributed by the Armenians to Semiramis.

Kutaieh, the residence of the beglerbeg or governor-general of Anatolia, is a large city with 50,000 inhabitants. *Karahissar*, in the neighborhood, noted for its opium and its woollen manufactures, has a population of 60,000 souls. *Broussa* or *Bursa* is one of the most flourishing cities of the empire; it contains an ancient castle, a number of magnificent mosques, handsome caravanseries of stone, and fine fountains, and has 100,000 inhabitants, actively employed in manufactures and commerce. It was once the capital of the empire, and at an earlier period was the residence of the Bithynian kings. In its vicinity is *Isnik* or *Nice*, now a miserable village, once a splendid city, and famous for having been the seat of the first general council of all Christendom, in 325. To the northwest, on the Bosphorus, opposite Constantinople, stands *Scutari*, with 35,000 inhabitants. It is the rendezvous of the caravans trading between Constantinople and the east, and contains many handsome buildings; its cemeteries are remarkable for their extent and elegance, the rich Turks of the European shore still preferring to be buried in Asia, out of love to the ancient land of their fathers.

Smyrna, pleasantly situated upon a gulf of the Archipelago, but with narrow and dirty streets, is the principal commercial place of Western Asia. It is about four miles in circumference, and makes a very handsome appearance when approached by sea. Its domes and minarets,

*Smyrna.*

interspersed with cypresses, rise finely above the tiers of houses, and the summit of the hill varies the view by the display of a spacious fortress. The town is not so ill built as many other Turkish towns are ; and the abundance of all the necessities of life, and the general civility even of the Moslem inhabitants, contribute to render this a desirable abode, except for 3 months, when the heat, though tempered by a westerly wind in the day, and by a land breeze in the night, is scarcely endurable, and is attended with very unpleasant attacks from stinging flies and still more troublesome mosquitoes. Its spacious and safe harbor, its central position, and its facilities of communication with the most remote provinces of the interior, render it the great mart of trade in this quarter of the world. The quarter inhabited by Franks or Europeans, enjoys the privilege of exemption from Turkish jurisdic-

*Pergamos.*

tion, the consuls of the respective nations exercising the necessary civil and judicial authority. Population, 130,000.



Akhissar.

Pergamos, not far from *Akhissar*, on the *Caicus*, is still a flourishing city with about 15,000 inhabitants; but it is only the shadow of what it was, when it was the residence of a powerful line of kings; it was once famous for its fine library, second only to that of *Alexandria*. Here parchment came into use as a material for writing, the princes of *Pergamos* not being able to obtain the necessary supply of papyrus. There are many interesting ruins here, and the monks pretend to show the tomb of *St. John*. (See cut on page 729.)

Manissa, a flourishing commercial town, noted for its extensive plantations of saffron, with 40,000 inhabitants; *Akhissar*, a large but poor town, on the site of the ancient *Thyatira*; *Scalanova*, 20,000, and *Guzel Hissa*, 30,000, are other considerable places in this part of the empire.

Konieh, in a rich and well-watered plain, is now much declined from its former importance, but it has still a population of 30,000 souls.

and contains numerous madrasses or colleges and manufactories. *Tocat*, upon the *Kizil Irmak*, is a large commercial city with 100,000 inhabitants. *Kaisarieh*, to the southwest, has 25,000 inhabitants. *Trebisond*, situated upon the *Black Sea*, with a fine harbor, and surrounded by a rich territory, remarkable for its delicious climate, was once the capital of an independent Grecian State, and is still important for its commerce, its manufactures, and its population amounting to 50,000. Copper and slaves are its principal exports. *Boli*, upon the great caravan route to *Constantinople*, with 50,000 inhabitants; *Angora*, 40,000, noted for its carpets, and *Tarsus*, the birth-place of *St. Paul*, once a rich, populous, and learned city, and still an active commercial town with 30,000 inhabitants, are also important towns.

10. *Industry*. Agriculture is in general in a most miserable condition, and, with few exceptions, manufacturing industry is not in a much better state. In the dyeing of cotton, woolen, and leather fabrics, however, the inhabitants are no way inferior in skill to the Europeans. The manufactures of Asiatic Turkey, though there are some of a finer quality, are chiefly of an ordinary kind, coarse, and for internal consumption only. Yet silk, cotton, leather, and soap are staples of the *Levant*; and the two latter find a place in the markets of Europe. The manufacture of *Damascus blades*, so famed in the middle ages, ceased from the period when *Timour* carried to *Tartary* the artisans employed on them. At *Tocat* there is a great fabric of copper vessels. The women among the wandering tribes in the upper districts weave the admired Turkey carpets; but the finest are made in the mountain districts of *Persia*. Western Asia has for centuries been the theatre of vast commercial operations,

and although, owing to the dangers of the roads, and the want of facilities of intercommunication, the commerce of this fine country is only a shadow of what it has been, still its central position between Europe, Asia, and Africa, the rich productions of its soil, and the manufactures of the great cities, sustain an active and profitable trade.

11. *Inhabitants, Manners, &c.* The inhabitants are various, and many of them may be ranked as nations. They are Turks, Armenians, Greeks, Jews, Arabs, Turcomans, Koords or Curds, and others. The dress of the Turks is principally the same as in European Turkey, and that of the other nations composing the Asiatic dominions, has a general resemblance to it. The languages are Turkish, Arabic, Chaldee, Koordish, *Lingua Franca*, and a motley mixture of all these.



Tartar.

Tartar Women.

are a very ancient people ; pliant to circumstances, bending to authority, and living by peaceful pursuits ; they have an animated physiognomy and good features ; they live in large families, closely united. The Jews do not essentially differ from them. The Greek is, as elsewhere,

The character of the population is various and discordant. The Turk is everywhere the same haughty, indolent being. The Armenian is timid, obsequious, frugal, industrious, and avaricious. He traverses all countries for gain, and generally the factors of the Turks, the merchants, and mechanics, are Armenians. They

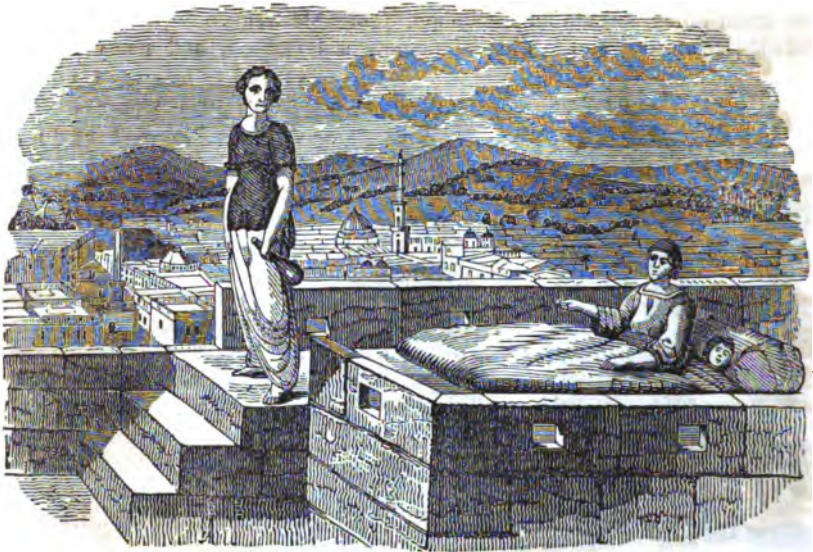
subtile, cheerful, and adroit. The Turcomans are boisterous, ignorant, brave, and hospitable ; they will shed their blood in defence of those with whom they have eaten. The Koords are robbers and thieves, and one tribe is often at war with another. The amusements of the various people, that inhabit Asiatic Turkey, are not of an intellectual or refined character. Tricks of jugglers, exhibitions of dancing females, feats of horsemanship, and recitals of stories, are common. The annexed cut represents an oriental *conversazione*. The arts are in a very low state, and the chief end of education seems to be to read the Koran. The prevailing religion is the Mahometan. There are a great many Christians, chiefly of the Armenian or of the Greek



An Oriental Conversazione.

church ; the Chaldean Christians have been able to maintain a political ascendancy, and Mahometanism is barely tolerated among them ; they do not permit the *muezzin* to make his call or prayers. Polygamy is not uncommon among the Mahometans, though it is chiefly confined to the rich. The government is that of the Pachas, appointed by the Porte, and the laws are the same as in European Turkey, principally the precepts of the Koran. Justice, however, is seldom obtained by an appeal to them, and there is little security for property or life.

The manner of building resembles that of European Turkey. The houses are square, with courts, and flat roofs, which are often occupied for the sake of fresh air, and the cities have



Top of an Eastern House.

many domes and minarets. Fountains are found in the cities, generally. Many of the wandering pastoral tribes live in tents. The food is generally plain and simple, and the general population temperate and abstemious. Coffee is almost a necessary of life, and many tribes live almost entirely from the produce of flocks and herds. The Koords eat a bread made of acorns. The most common spirituous liquor is arrack, and it is often drunk to intoxication. Few people are addicted to opium. The diseases are of almost every kind that are common in Europe. In sandy districts, ophthalmia is common, and the plague commits ravages in cities. The science of medicine is in a low state, and any person who assumes the character of a Frank physician, may find much employment. The traveling is generally on horseback, for there are few vehicles or regular roads. There are a few miserable post-horses furnished by contract, or rather by tribute, on the routes of the chief cities, even as far as from Constantinople to Bagdad, but these are not to be had by travelers, unless they put themselves under the care of a Tartar courier, who goes with despatches. For a certain sum, the courier takes them, and furnishes horses and provisions, while the travelers find only their own saddles, bridles, portmanteaus, whips, and leathern bottles for water. This is the most expeditious mode of traveling; the caravans are safer, but when in motion, they go but three miles an hour, and they are subject to many delays.

12. *Antiquities.* The site of ancient Troy is the foundation of many a learned controversy. One of the chief attractions of the Troad is the "sepulchre of Ajax," a tumulus, surmounted by a shrine. The ruins of several temples cover a considerable space with fragments of granite and marble. The tomb of Ilus is a high, conical tumulus, of a remarkable size. Other immense tumuli bear, somewhat doubtfully, the names of Hector, Priam, and Paris. Near Alexandria Troas, which is full of antiquities, is a granite column, nearly 38 feet long, and 5 feet 3 inches in diameter. The enormous masses of the aqueduct of Herodes Atticus, the walls of the city, and the fragments of many buildings, remain. Asia Minor has numberless ruins of architectural magnificence; they consist in temples, theatres, arches, walls, tombs, and cities; but our limits will not permit us to describe them.

The remains of the ancient cities of Babylon and Nineveh are extensive, but indistinct; those of the latter are on the Tigris, opposite Mosul, and those of the former, on the Euphrates, near Bagdad. About 12 miles from Bagdad, is a heap of brickwork, 126 feet high, and of the diameter of 100 feet. It is called Nimrod's Palace. This tower rises on a wide heap of rubbish. The principal ruins of Babylon are immense mounds of brick, which seem undi-

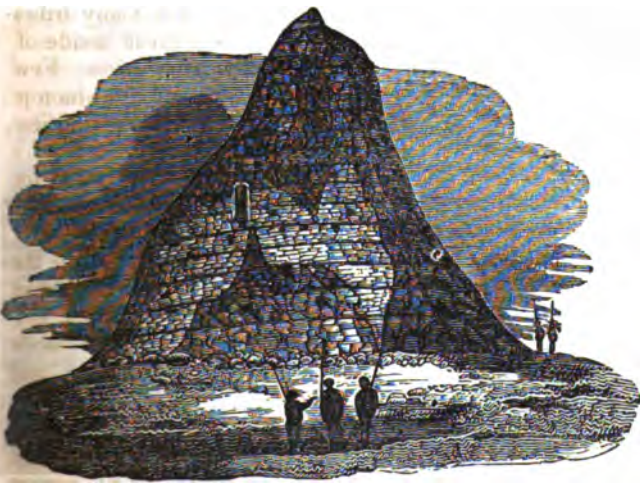
minished, though they have served for centuries as quarries of a neighboring city of 12,000 people. One of the first mounds approached, was formerly supposed to be the temple of Be-



Ruins of Babylon.

It is 2,200 feet in circumference, and 141 in height.

Another mound is held to be the remains of one of the palaces, with the ruins of hanging gardens, which were 80 feet high, and contained 3 acres and a half; they were supported by masonry. Among all the ruins are found fragments of pottery, alabaster, &c. What is called the tower of Babel, and temple of Belus, or Birs Nimrood, is near the Euphrates. Its appearance is that of a fallen and decayed pyramid, with the remains of a tower on the top. The tower is 60 feet in height, and the rubbish whereon it stands 200. This is the most conspicuous of all the mounds of Babylon. It seems to have risen in distinct stages or platforms, of which the remains are visible; and the apparent tower



Tower of Babel.

which now surmounts it, is but a remaining part of one of these platforms. It formed the fourth stage, and there were doubtless several other stages above it.

How truly are fulfilled the prophetic words of holy writ, uttered when "the glory of kingdoms, the beauty of the Chaldee's excellency," was yet in the pride of power: "The wild beasts of the forests shall lie there, the dragons shall howl in her pleasant palaces."

13. *History.* From the earliest dawn of history to the present moment, these countries have been the scene of the most interesting events, and the empire of the world has been repeatedly contested on the Mesopotamian plains. In the obscurity of early history, the great empires of Assyria and Babylon are dimly seen, overshadowing the known world, and finally both yield to the Persian arms, which swept all before them to the shores of the Mediterranean. This in turn falls before the Macedonian phalanx and the genius of Alexander, and, on his

death, the powerful kingdom of the Seleucids, embraced most of the Ottoman provinces of Asia. Antiochus, in turn yielded to the star of Rome, and the empire of that warlike republic was extended to the Euphrates. In the 7th century the Arab tribe of Saracens burst forth from their deserts, and proclaimed a new religion, and the empire of the caliphs once more restored the seat of dominion to Mesopotamia. This in turn crumbled and fell to pieces, and in the 15th century, all this part of Asia was subjected to the degrading yoke of the Ottomans.*

CHAPTER LXII. SYRIA.

1. *Boundaries and Extent.* This region, though it forms a part of the Ottoman empire is so celebrated in history as to deserve a separate description. It is bounded north by Asia Minor, on the south by Arabia, and on the west by that part of the Mediterranean often called Levant. It extends from latitude 31° to 37° north, and from longitude 35° to 41° east, having an area of about 50,000 square miles, with 1,500,000 inhabitants.

2. *Mountains.* The *Libanus* traverses the country from north to south in 2 distinct chains ;



Mount Tabor.

the principal chain near the coast forms the *Lebanon Mountains* ; the highest summit, near Balbec, has an elevation of upwards of 11,000 feet. The *Anti-Libanus* or interior chain rises to a greater height, some of its summits being upwards of 16,000 feet high. *Mount Carmel* and *Mount Tabor* are of historical celebrity. The latter is generally supposed to have been the scene of the transfiguration, but if it was not it derives interest from the striking features of the prospect afforded from its top ; the hills and the Sea of Galilee,

* "In history, the interesting transactions connected with Asia Minor have been so numerous and varied, that we can attempt only a very rapid enumeration. The first picture is that of its nations when arrayed against Greece in the Trojan war. Troy, in that great contest, drew auxiliaries from Caria, Lycia, Assyria, Phrygia, and Macedonia, so that it became almost a contest of Greece against Asia. Even the Greek pencil of Homer seems to delineate on the Asiatic side a people more polished and humane, though less energetic and warlike, than their invaders. Afterwards in the republics of the refined and effeminate Ionia, we find an early perfection of the sciences, poetry, music, and sculpture then unknown to Greece, though that country, in arts as well as in arms, soon eclipsed the glory of its masters. Here, too, the kingdom of Lydia was early famous, first for power, but much more afterwards for wealth and luxurious effeminacy. These unwarlike states soon yielded to the arms of Persia, were included within its empire, and their arts and resources served only to swell the pomp of its satraps. In this humiliating condition, they lost all their former high attainments ; and it became of little importance, that they passed sometimes under the sway of Athens, and were ruled by Greeks instead of barbarians. After the conquest of Alexander, however, and when his rapidly formed empire fell as suddenly to pieces, some of the most conspicuous among the fragments were kingdoms established by his successors in Asia Minor. It was there that Antigonus and Demetrius collected a great portion of the resources, with which they made such a mighty struggle for supremacy among the Macedonian chiefs. After their fall, the kingdom of Pergamus was founded, whose princes, by their own ability, and the alliance of the Romans, became for some time the most powerful in Asia. Their glory, however, was surpassed

by that of a kingdom formed in the opposite quarter of the peninsula, that of Pontus, by the powerful character and high exploits of Mithridates, under whom the last great stand was made for the independence of the world. Asia Minor was next reduced completely into a Roman Province, and made few and feeble attempts to shake off the yoke.

"It was chiefly distinguished in ecclesiastical history, by the formation of apostolic churches and the assemblage of general councils ; of which those of Nice and Chalcedon, in particular, had an important influence on the belief and worship of the Christian world. Protected by its distance from Arabia, and by the mountain chains of Taurus, this peninsula escaped in a great measure the tide of Saracen invasion. That great succession of hordes, however, who, under the name of Turks, poured down from the northeast of Asia, after conquering Persia, crossed the Euphrates and established a powerful kingdom in Caramania. Being divided, and crushed under the first successes of the crusaders, the Turkish (Seljukian) power sank into a languishing state. Suddenly, however, from its ashes, rose the family of Othman, who, collecting the Turkish remnant, and combining it with the neighboring warlike tribes, formed the whole into a vast military mass, which there was no longer anything adequate to oppose. This power continued to have its principal seat in Asia Minor, until Mahomet the Second transferred to the Ottoman Porte the dominion of the Cæsars, and made Constantinople the capital of his empire. Asia Minor has always continued more entirely Turkish than any other part of the empire ; and it is thence, chiefly, that the Porte draws those vast bodies of irregular cavalry, which form the chief mass of its armies." *Encyclopædia of Geography.*

or Lake of Tiberias ; Nazareth, the early residence of the Savior ; the plain of Esdralon, the theatre of many actions in Jewish history, as well as in the times of the crusades ; the mountains of Gilboa, where the Philistines gained a signal triumph over the chosen people ; the village of Cana, the scene of the first miracle of Jesus, are all within the sphere of vision.

3. *Rivers and Lakes.* The *Orontes* is the principal river of this region ; it rises in the Anti-Libanus, and reaches the sea after a course of 250 miles. The other rivers are small. The *Jordan*, or *Arden*, rises in Mount Hermon in the chain of the Anti-Libanus, and flows through the small Lake of *Genesareth*, or *Tiberias*, into the lake called by writers the *Dead Sea*. The



Sea of Tiberias.

latter is a small body of water, about 60 miles long, and from 10 to 15 wide ; its waters are salt and bitterish, and remarkable for their great weight ; they abound in asphaltum, a sort of bituminous substance, whence the lake is also called *Lake Asphaltites*. It is supposed to occupy the site of the ancient cities of Sodom and Gomorrah, whose guilty inhabitants were engulfed in its gloomy waves.

4. *Climate and Vegetation.* The climate of Syria is for the most part like that of Northern Africa, but there are districts in the north where the cold is too great for the free growth of the date, orange, and lemon. "It has been remarked," says Malte Brun, "that if the advantages of nature were duly seconded by the efforts of human skill, we might, in the space of 20 leagues, bring together in Syria all the vegetable riches of the most distant countries. Besides wheat, rye, barley, beans, and the cotton-plant, which are cultivated everywhere, there are several objects of utility or pleasure, peculiar to different localities. Palestine, for instance, abounds in sesamum, which affords oil, and dhoura, similar to that of Egypt. Maize thrives in the light soil of Balbec, and rice is cultivated with success along the marsh of Haoule. Within these 25 years sugar-canes have been planted in the gardens of Saide and Bei-



Barley.

rou ; indigo grows without culture on the banks of the Jordan, and tobacco is cultivated in all the mountains. The white mulberry forms the riches of the Druses, and the vines furnish red and white wines equal to those of Bordeaux. Jaffa boasts of its lemons and watermelons ; Gaza possesses the dates of Mecca, and the pomegranate of Algiers. Tripoli has oranges which vie with those of Malta ; Beirut has figs like Marseilles, and bananas like St. Domingo ; Aleppo is unequalled for pistachio-nuts, and Damascus possesses all the fruits of Europe, apples, plums, and peaches growing with equal facility on her rocky soil." A peculiar



Fig.

the fruits in order to deposit their eggs. The sycamore tree of Scripture (*F. sycamorus*) is a sort of wild fig, the fruit of which, although quite bitter, was eaten by the Jews. The pome-



Sycamore.

granate (*Punica granatum*) is common in Syria and Aleppo, and is often mentioned in the scriptures. There are several sorts, one being sour, and the others, which are eaten at table, sweet. The husks, "which the swine did eat," and with which the prodigal was fain to fill himself, are supposed to be those of the fruit of the carob or locust-tree (*Ceratonia siliqua*, a middle-sized tree with the seeds contained in large pods; these husks are still employed in Palestine for feeding cattle. The locust tree is also called St. John's bread, from an idea that its fruit was the locust spoken of as the food of John the Baptist; but others think, that the word in that passage means the insect, which is still eaten in the East. The palm-tree of the Bible is



Palm-tree.

the date palm (*Phoenix dactylifera*), the fruit of which is eaten fresh or dried. Jericho was called the city of palms from the abundance of these trees in its vicinity, and on the Roman coins they were emblematic of Judea. At the feast of the tabernacles, "goodly palm branches" were used in the erection of the tents, and when our Savior entered Jerusalem, "the people took branches of the palm-tree, and went out to meet him." The Jews in the northern countries still procure them for the Passover, at great expense. The olive (*olea*) attains to a great size in Palestine, which has always been famed for the excellence and abundance of its oil, and is described in Scripture as "A land of wheat and barley, of vines and fig-trees and pomegranates, a land of oil and honey." The cedar of Lebanon (*Pinus cedrus*) is remarkable for its stately size, and wide-spreading branches, and the timber was highly esteemed by the Jews (see cut on the opposite page). The temple and the royal palace were built of wood, and it was used by the Tyrians for masts. The Psalmist calls these trees "the cedars of God." They are now rare in Palestine. The terebinth tree (*Pistachia*



Bay-tree

interest is attached to several shrubs of this region, from their being mentioned in the scriptures, and some of these will now be more particularly noticed. The fig-tree (*Ficus carica*) abounds in Palestine, and the men, who were sent by Moses to spy out the land of Canaan, brought with them figs and pomegranates. What we commonly esteem the fruit of the fig is not, however, the fruit, but a receptacle containing numerous florets; in order to ripen this more surely the process of caprification is performed, that is, the receptacle is punctured in order to give the male dust a more ready access to the female flowers. In the East this is effected by collecting a little insect from the wild fig, and bringing them to the cultivated tree, where they pierce the fruits in order to deposit their eggs. The sycamore tree of Scripture (*F. sycamorus*) is a sort of wild fig, the fruit of which, although quite bitter, was eaten by the Jews. The pomegranate (*Punica granatum*) is common in Syria and Aleppo, and is often mentioned in the scriptures. There are several sorts, one being sour, and the others, which are eaten at table, sweet. The husks, "which the swine did eat," and with which the prodigal was fain to fill himself, are supposed to be those of the fruit of the carob or locust-tree (*Ceratonia siliqua*, a middle-sized tree with the seeds contained in large pods; these husks are still employed in Palestine for feeding cattle. The locust tree is also called St. John's bread, from an idea that its fruit was the locust spoken of as the food of John the Baptist; but others think, that the word in that passage means the insect, which is still eaten in the East. The palm-tree of the Bible is the date palm (*Phoenix dactylifera*), the fruit of which is eaten fresh or dried. Jericho was called the city of palms from the abundance of these trees in its vicinity, and on the Roman coins they were emblematic of Judea. At the feast of the tabernacles, "goodly palm branches" were used in the erection of the tents, and when our Savior entered Jerusalem, "the people took branches of the palm-tree, and went out to meet him." The Jews in the northern countries still procure them for the Passover, at great expense. The olive (*olea*) attains to a great size in Palestine, which has always been famed for the excellence and abundance of its oil, and is described in Scripture as "A land of wheat and barley, of vines and fig-trees and pomegranates, a land of oil and honey." The cedar of Lebanon (*Pinus cedrus*) is remarkable for its stately size, and wide-spreading branches, and the timber was highly esteemed by the Jews (see cut on the opposite page). The temple and the royal palace were built of wood, and it was used by the Tyrians for masts. The Psalmist calls these trees "the cedars of God." They are now rare in Palestine. The terebinth tree (*Pistachia terebinthus*) is often mentioned in Scripture, and is called oak, in our translation. Isaiah threatens the idolaters, that they shall be as a terebinth-tree, whose leaves fall off; that is, being an evergreen, when the tree dies. It lives to a great age. The plane-tree (*Platanus orientalis*) is abundant in Palestine; the thorns, with which our Lord was crowned, were the spiny branches of the *Spina Christi*; the balm of Gilead was the produce of the *Amyris Gileadensis*, and the *A. Opobalsamum*, gum ladanum is yielded by the beautiful *Cistus ladaniferous*, and galbanum, an ingredient of the incense of the sanctuary, was procured from the *Budon galbanum*. What particular plant is the rose of Sharon or the rose of Jericho, is not decided, but what is commonly called the Jericho rose is the *Anastatica hierocypuntica*, and no rose at all. The grapes of Palestine are not less remarkable for their dimensions, than for the

great size of the clusters. The bay-tree of Scripture is the sweet bay (*Laurus nobilis*), a small evergreen. The almond-tree, on account of its white blossoms, is used to typify old age.

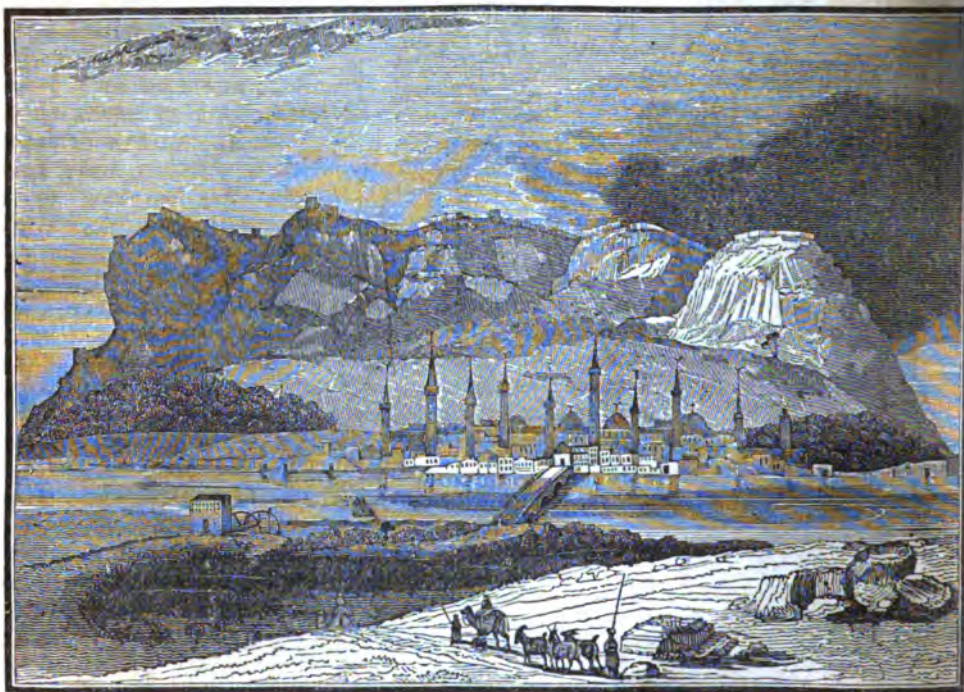


Cedars of Lebanon.

5. *Divisions.* Syria, or Sham, comprising Palestine in the southwest, was divided, while it formed a part of the Ottoman empire, into 4 pachalics or eyalets ; Aleppo, Damascus, Acre, and Tripoli, bearing the names of their respective capitals.

6. *Towns.* Aleppo, the capital of Syria, and its suburbs, are 7 miles in compass, standing on 8 small hills, on the highest of which the citadel is erected, but of no great strength. An old wall, and a broad ditch, now in many places turned into gardens, surround the city, which was estimated by the late Dr. Russell to contain 230,000 inhabitants, of whom 30,000 were Christians and 5,000 Jews ; but, at present, it does not contain more than 150,000. Whole streets are uninhabited, and bazars abandoned. It is furnished with most of the conveniences of life except good water, within the walls, and even that is supplied by an aqueduct, distant about 4 miles, said to have been erected by the empress Helena. The streets are narrow, but well paved with large, square stones, and are kept very clean. The gardens are pleasant, being and

out in vineyards, olive, fig, and pistachio trees ; but the country round is rough and barren. Foreign merchants are numerous here, and transact their business in caravanserais, or large square buildings, containing their warehouses, lodging-rooms, and counting-houses. This city abounds in neat mosques, some of which are even magnificent ; in public bagnios, which are very refreshing ; and bazars, which are formed into long, narrow, arched, or covered streets, with little shops, as in other parts of the East. In 1822, the city, as well as almost every other of the pachalic, was nearly shaken to pieces by an earthquake ; it was estimated, that 20,000 persons were killed, and as many wounded in the city on that terrible night, and many others afterward fell victims to disease from exposure or from hunger. Yet such are the advantages of its site, that Aleppo must continue to be a large city. In the vicinity are *Hamah*, on the Orontes, situated in a fertile district, esteemed the granary of Syria, with extensive manufactures and a thriving commerce, giving employment to 60,000 inhabitants ; *Antakieh*, on the



Modern Antioch.

site of the ancient *Antioch*, with about 12,000 inhabitants ; and *Scanderoon*, or *Alexandretta*, a small town in an unhealthy situation, but the centre of an active trade.

Tripoli, a well-built city in a delightful district, carries on a considerable commerce. It has 16,000 inhabitants. *Acre* or *Ptolemais* is one of the principal commercial towns of Syria, population, 20,000. In its vicinity are *Mount Carmel*, celebrated in sacred history ; *Tyre* and *Sidon*, once queens of the sea ; and *Jaffa* or *Joppa*, the nearest port to Jerusalem. To the north of *Sidon* is *Beirout*, the ancient *Berytus*, in the land of the Druses, a small town with about 5,000 inhabitants, and, further north, is *Gibel*, the *Byblos* of the Greeks, and the *Gebal* of the Old Testament, whose inhabitants were the calkers of Tyre. In the interior is the village of *Balbec* or *Baalbec*, noted for its fine ruins.

Damascus, one of the most ancient cities in the world, since it is mentioned in the history of Abraham, is one of the handsomest and most flourishing cities of Asia. It stands in a valley celebrated for its beauty and fertility, and ranked by the Arabians as one of their four terrestrial paradises. The houses, though simple externally, are internally finished in a style of great splendor, and most of them are furnished with fountains. The coffee-houses, many of which are built upon piles in the river, where an artificial cascade has been made, are distinguished for their luxury and magnificence. From 30,000 to 50,000 pilgrims on their way from all parts of the Ottoman empire, and from Persia and Turkistan, annually assemble at Damas-

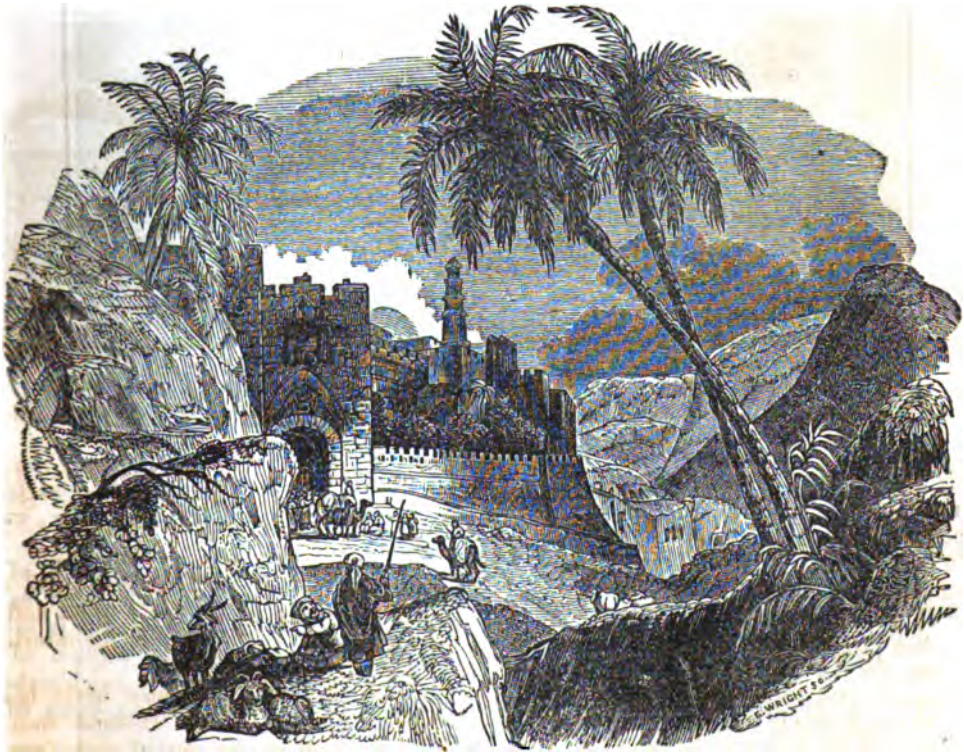
ous, to join the caravan for Mecca ; 3 other caravans leave each thrice a year for Bagdad, and one for Aleppo two or three times a month. Population, 140,000.

Jerusalem, the most celebrated city of the world, the cradle of Judaism and Christianity, and the second sanctuary of Mahometanism, is built at the foot of Mount Sion, upon Mounts Acra, Moriah, and Calvary. It is surrounded with high walls of hewn stone, flanked with towers, and the brook Kedron runs near it. Several of the mosques are magnificent edifices of great size, and adorned with numerous columns and domes. The mosque of Omar, the most splendid edifice in Jerusalem, consists of a collection of mosques and chapels, surrounded by a vast enclosure. One of these chapels, called the Rock, is an octagon of 160 feet in diameter, rising from a platform, 460 feet long by 339 broad, paved with marble, and raised

16 feet ; its interior is adorned with great splendor, and is always illuminated by thousands of lamps ; it contains a stone, said to be that upon which Jacob pillowed his head, and which, according to the popular tradition, bears the imprint of the foot of Mahomet, who ascended from



Jerusalem.



Hills and Walls around Jerusalem.

it to heaven, and intrusted it to the care of 70,000 angels. Of Christian edifices are the church of the holy sepulchre, said to be built upon the spot where the body of Jesus was entombed, the Catholic convent of St. Saviour, in the church of which are sit



Church of the Holy Sepulchre.

and the houses of Mary Magdalen and Martha are pointed out ; and between the mount of Olives and Jerusalem, is the valley of *Jehoshaphat*, still, as in ancient times, a Jewish cemetery. At a greater distance from the city lies *Bethlehem*, a little village where Christ was born, and co-

ver and gold vessels and ornaments, valued at nearly 2,000,000 dollars ; and the Armenian convent, with upwards of 800 cells for the accommodation of pilgrims, many thousands of whom annually visit this sacred spot. Population, 30,000.

In the vicinity is the *Mount of Olives*, so called from the grove of olive trees which still in part cover it, from which Christ ascended to heaven ; at its foot, was the village of *Gethsemane*, containing a garden to which the Saviour often retired to pray, and where he was betrayed by Judas to his murderers ; a little to the east is *Bethany*, where the house and tomb of Lazarus,



Garden of Gethsemane, as it now appears.

taining a vast grotto hewn out of a rock, called the chapel of the Nativity, supposed to be upon the spot of his birth ; near Bethlehem are 3 reservoirs of great size and solidity, called the pools of Solomon.

To the north of Jerusalem near Acre, are *Nazareth*, where, in the splendid church of the Annunciation, is shown the supposed residence of the Virgin Mary ; *Cana*, celebrated as the scene of one of Christ's miracles ; and *Mount Tabor*, upon which his transfiguration is said to have taken place ; the field of corn, the mount upon which was delivered the sermon of the blessings, and the scene of the miracle of the loaves and fishes, are also in this neighborhood. *Capernaum*, where Christ performed many miracles, and spent much of the last years of his life, is likewise in this direction.

Between Jerusalem and the Jordan is the wide, flat plain of Jericho, 20 miles in length and 10 in breadth, walled in on all sides by the high mountains of Judea and Arabia. In this plain the sight of the city of Jericho is still recognised, but scarcely any vestiges of its ruins remain.

From Jerusalem, northwards, the road runs through a hilly and rugged country, which, however, by the industry of the inhabitants, has been made a garden. Here, after passing *Bethel*,



Bethlehem.



Nazareth.



Jericho.

the scene of Jacob's dream, the traveler comes to *Naplous* or *Napolose*, near the site of the ancient *Samaria*, one of the most beautiful and flourishing cities of the Holy Land. It stands in a fertile valley, surrounded by hills, and embosomed in stately groves and rich gardens. Population, about 10,000. A small remnant of the Samaritans still worship on *Mount Gerizim*. *Tabaria* or *Tiberias* stands on the lake of that name, which was formerly bordered with several large cities. The city was built by Herod the tetrarch, and became the seat of a celebrated Rabbinical university; in this character its fame was so great, that the Jews account it one of their 4 holy cities, and many of that people still reside here. Saphet, Jerusalem, and Hebron, are the other 3 cities dignified with the same title. The country beyond Jordan, or Hauran, partakes of the character of the Arabian desert; but in the neighborhood of Mount Gilead there are well-watered and fertile tracts; under the Roman sway it contained several flourishing cities, among which was *Philadelphia*, now *Amman*, mentioned in the history of the apostles.



Ancient Philadelphia, now Amman.

6. *Industry.* The eastern part of the country extending to the Euphrates is a vast desert, interspersed with some oases, or fertile and well-watered spots. But although the rest of the country abounds in fertile valleys, and enjoys a mild and delightful climate, the tyranny and lawless violence of man have blasted it, and ignorance, superstition, and barbarism now cover the land long the abode of industry, arts, wealth, learning, and refinement. Agriculture, manufactures, and commerce, discouraged by difficulties of communication, and insecurity of property, are in a languishing condition. The natural advantages of this fine country have already been described; in contrast with these listen to the description of its actual condition by an eyewitness. "Everywhere," says Volney, "I saw only tyranny and misery, robbery and devastation; I found daily on my route abandoned fields, deserted villages, cities in ruins. Frequently I discovered antique monuments, remains of temples, of palaces, and of fortresses; pillars, aqueducts, and tombs; this spectacle led my mind to meditate on past times, and excited in my heart profound and serious thoughts. I recalled those ancient ages, when 20 famous nations existed in these countries; I painted to myself the Assyrian on the banks of the Tigris, the Chaldean on the Euphrates, and the Persian reigning from the Indus to the Mediterranean. I

numbered the kingdoms of Damascus and Idumea, of Jerusalem, and Samaria, the warlike states of the Philistines, and the commercial republics of Phœnicia. This Syria, said I, now almost unpeopled, could then count a hundred powerful cities, its fields were covered with towns, villages, and hamlets. Everywhere appeared cultivated fields, thronged roads, crowded habitations. What, alas! is become of these days of abundance and of life? What of so many brilliant creations of the hand of man? Where are the ramparts of Nineveh, the walls of Babylon, the palaces of Persepolis, the temples of Baalbec and Jerusalem? Where are the fleets of Tyre, the docks of Arad, the looms of Sidon, and the multitude of sailors, pilots, merchants, and soldiers? Where are those laborers, those harvests, those flocks, and that crowd of living beings which then covered the face of the earth? Alas! I have surveyed this ravaged land, I have visited the places which were the theatre of so much splendor, and have seen only solitude and desertion. I have sought the ancient nations and their works, but I have seen only a trace, like that which the foot of the passenger leaves on the dust. The temples are crumbled down, the palaces are overthrown; the ports are filled up; the cities are destroyed, and the earth, stripped of its inhabitants, is only a desolate place of tombs."

7. *Inhabitants.* The population is composed of as various elements as that of Asiatic Tur-



Woman of Aleppo.

Turk.

Arabian Woman.

key. Ottoman Turks and Greeks are the principal inhabitants of the cities; Arabs and Turcomans are numerous; in the mountainous regions there are several peculiar tribes, the Druses, the Ismaelians, and the Nosairians, of rude manners, and warlike and predatory habits. The Ismaelians have become celebrated under the name of Assassins, and their prince was known in the Middle Ages under the name of the Old Man of the Mountains; from his mountain fastness he sent his fierce *hashishim* or warriors forth upon expeditions of robbery and murder, whence the origin of the word assassin. The Druses occupy the more northern heights of Lebanon; they are a fierce race, and they

show the same boundless hospitality and the same deadly feuds as the Arabs. They have maintained their independence, and with it a spirit of energy and a vigor of character rarely found among the Syrian tribes. The affairs of the nation are settled in an assembly of the sheiks or hereditary chiefs, but the body of the people also take part in these meetings. Their religious creed is a sort of Mahometanism, and owes its origin to Hakim, one of the Fatimite caliphs, who preached a reform in the 10th century, and laid aside many of the peculiarities of that faith. They pray indiscriminately in a mosque or a church, and seem to regard Christianity with less aversion than Mahometanism.

8. *Religion.* The tribes last mentioned have adopted peculiar forms of Mahometanism, and in some instances, mixed it with other rites, and are looked upon as heretics by their brethren. The Motoualis are another heretical sect of Mahometans. The Maronites, a people of mountaineers near Tripoli, are Roman Catholic Christians. The other inhabitants are of the same religious sects as those of Asiatic Turkey. Roman and Greek Catholic, Coptic, Armenian, and other monks are found in Jerusalem, each occupying a chapel in the spots most remarkable for their sanctity.

9. *Antiquities.* Some of the remains of past ages have been already alluded to, but they are too numerous to be enumerated here. Among the most remarkable spots, Palmyra, or Tadmor in the desert, presents an imposing spectacle in rising from the sands of the desert. It looks like a forest of columns. The great avenue of pillars leading to the temple of the sun, and terminated by a grand arch, is 1,200 yards in length. The temple itself is a magnificent object. The city is a vast collection of ruins, all of white marble, and it is hard to



Ruins of Palmyra, or Tadmor in the Desert.



Palmyra.



Baalbec.

Imagine anything more striking than the general view. When examined in detail, the ruins lose much of their interest. None of the columns exceed 40 feet in height, or 4 in diameter, and they are composed of 7 or 8 pieces of stone; while at Baalbec, the columns are of 3 pieces only, about 60 feet high, and support a beautiful epistylum of 20 feet more. There is at Palmyra great sameness in the architecture, and the sculptures and ornaments are coarse and insignificant. The ruins are nearly a mile and a half in length.

At Baalbec, on the site of the ancient Heliopolis, "the grand ruin," to which the place owes its celebrity, is near the foot of the Anti-Libanus. The portico has marble pillars, of the Corinthian order, more than 6 feet in diameter, and 45 feet in height, composed of 3 stones each. They are 9 feet apart, and the same from the walls of the temple; there are 14 of these pillars on each side of the temple, and 8 at the end. A stately architrave, richly carved, runs all round the capitals. There are many exquisitely sculptured figures; all the ornaments are in the best taste. There are other temples and fragments of the walls which inclose them. The stones are of almost incredible size. Three of the larger ones exceed 67 feet in height. They are 9 feet deep, and 14 in breadth. The mass of stones in the walls are enormous, and some 60 feet long, and 12 broad and deep, are raised in the wall 20 feet from the ground. A whole wall, 400 feet on a side, was constructed of these blocks, from 30 to 60 feet long. In the pyramids of Egypt, there are one or two stones 18 feet long. There are other temples and various ruins at Baalbec.

At Nazareth, is a church wrought out of a cave, in the form of a cross, and shown to travelers as the spot where the Blessed

Virgin received the message of the angel, as related in the first chapter of St. Luke. The original church was built by the Empress Helena, mother of Constantine. Some of the remains of this edifice may be observed in the forms of subverted columns, which, with the fragments of their capitals and bases, lie near the modern building; the present church and convent are of recent structure. In the same town, is shown the synagogue in which our Savior read the Scriptures to the Jews. Two miles from Nazareth, is the Mount of Precipitation, down which the Nazarenes attempted to cast him headlong.

In Palestine, which, from its having been the place of so many wonderful and sacred events, we call the Holy Land, few vestiges remain of the ancient edifices. A barbarous and bigoted people have destroyed them. There is even much doubt as to many of the places described in the Scriptures at Jerusalem. On this subject, however, it is so pleasing to be deceived, that credulity rises somewhat higher than probability, and the pilgrim feels a willingness to believe the descriptions given him by the resident Christians. Many spots, however, may be indicated with sufficient certainty. In the 4th century, when they were known by tradition, the Empress Helena erected, over numbers of their temples, altars and oratories. The mosque of Omar occupies the place of Solomon's temple. A church is built near the place of the Holy Sepulchre, for the possession of which, Europe was arrayed in arms for 300 years. The pilgrims approach the consecrated spot upon their knees. On Calvary, a piety of more zeal than knowledge, pretends to show the hole made in the ground for the cross. It is covered with marble, but perforated, so that the spot may be touched. The memorable cleft in the rock, made at the crucifixion, is still shown; this also is covered with marble. Maundrel describes the cleft as a span wide at the surface, and two spans deep; after which, it closes, but opens below, and runs down to an unknown depth. Here are also the tombs of the Latin kings of

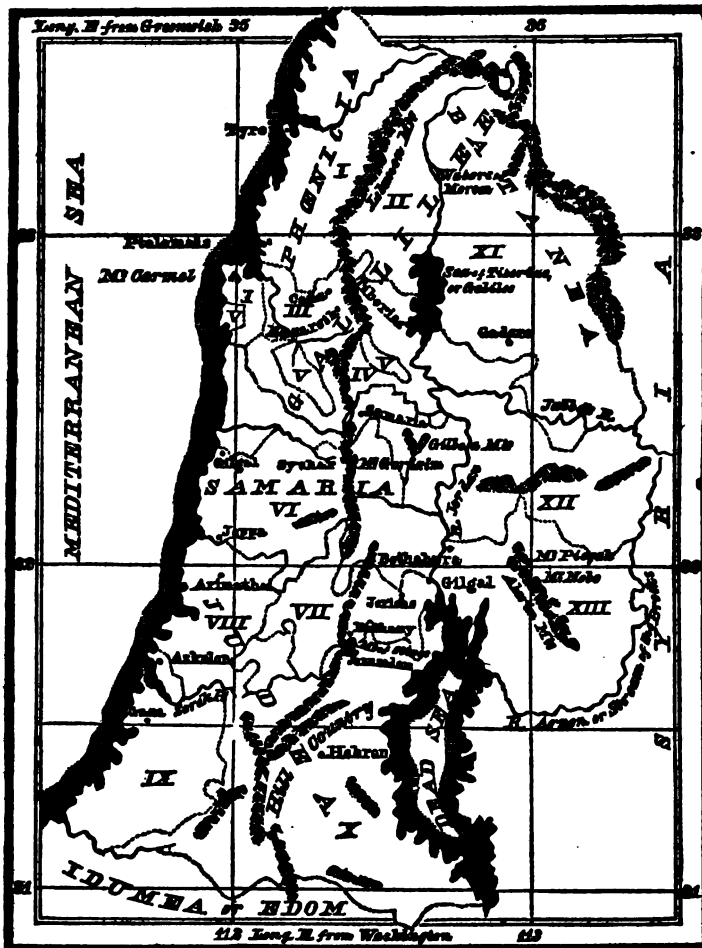


Sepulchre of the Kings.

Jerusalem. On the east of Mount Zion, is the pool of Siloam. It is under an arched vault of masonry. In the valley of Jehoshaphat are edifices called the tombs of Zachariah, of Abraham, and of Jehoshaphat. The pool of Bethesda remains with its original facing of large stones. At Bethlehem, a convent built by Helena marks the spot of the Redeemer's birth. The edifice has been so often repaired, that it contains probably few of the original materials. None of the consecrated places are pointed out with so much certainty as the spot of the Nativity; and of this spot, which is worn by the feet of pilgrims, there is no ground for skepticism.

10. *History.* The name of Palestine seems to be derived from the ancient Philistines, but the country is more commonly known in Scripture first as the Promised Land and the Land of Canaan, and afterwards, when occupied by the 12 tribes of Israel, as Judea. The people of the Phœnician States, on the northeast, were early wealthy and commercial, and were generally on friendly terms with the Israelites, while the people of Syria were generally hostile. At a later period, all these regions were conquered by the Babylonians, the Persians, the Macedonians, the Romans, Saracens, and Turks, and have followed the fortunes of the great empires that swallowed them up. It was about 16 centuries before Christ, that Moses conducted the oppressed Hebrews from the plains of Egypt, through the wastes of Arabia to the borders of Canaan, where he died, after having given them the laws dictated by God. The

12 tribes occupied the country as delineated on the accompanying map, and for some time formed a republic, until (nearly 1,200 years before Christ) they demanded a king, and Saul received the royal power. David and Solomon succeeded, and raised the kingdom to its highest pitch of glory ; but it was soon after divided into two States, the kingdom of Israel and the



- I. Asher.
- II. Naphtali.
- III. Zebulon.
- IV. Issachar.
- V. Manasseh.
- VI. Ephraim.
- VII. Benjamin.
- VIII. Dan.
- IX. Simeon.
- X. Judah.
- XI. Manasseh (beyond Jordan).
- XII. Gad.
- XIII. Reuben.

Map of Ancient Palestine.

kingdom of Judah. A.C. 721, the 10 tribes of Israel were carried into captivity by the Assyrians ; and not long after, the 2 tribes of Judah were carried to Babylon by Nebuchadnezzar. Jerusalem was totally destroyed and the Jews finally dispersed by Titus, A. D. 72, and that singular people has ever since been scattered all over the world, yet preserving its national character and institutions.

CHAPTER LXIII. ARABIA.

1. *Boundaries and Extent.* Arabia is bounded N. by the pachaics of Bagdad and Damascus, in Asiatic Turkey ; E. by the Persian Gulf ; S. by the Indian Ocean ; and W. by the Red Sea. It extends from 12° to 34° N. latitude, and from 33° to 59° E. longitude. The area is about 1,000,000 square miles.

2. *Divisions.* Arabia was divided by the ancients into three parts ; *Arabia Felix*, or Happy Arabia, comprising the southwestern part of the country, bordering on the Indian Ocean, and on the southern part of the Red Sea ; *Arabia Petraea*, lying on the Red Sea, north of Arabia Felix ; and *Arabia Deserta*, much the largest division, embracing all the eastern and northern

part of the country. These names are still in common use among Europeans; the natives, however, divide the country into 5 parts, as follows; 1. *Yemen*, 2. *Hedsjas*, 3. *Oman*, 4. *Lachsa*, 5. *Nedsjed*. The first of these seems to correspond with Arabia Felix, the second with Arabia Petrea, and the three last with Arabia Deserta.

3. *Mountains, Deserts, &c.* Arabia is an arid desert, interspersed with a few fertile spots, which appear like islands in a desolate ocean. Stony mountains and sandy plains form the prominent features in the surface of this vast peninsula. To the north, it shoots out into a very extensive desert, lying between Syria and the countries on the Euphrates. The whole coast of Arabia, from Suez to the head of the Persian Gulf, is formed of a plain called the *Tehama*, which presents a picture of the most complete desolation. The interior is diversified by extensive ranges of mountains, but there is no river of any consequence in all Arabia; almost every stream either losing itself in the sandy plains, or expanding into moors and fens.

4. *Climate.* In the mountainous parts, the climate is temperate; but in the plains, intolerable heat prevails. A hot and pestiferous wind, called the *simoom*, frequently blows over the desert, and instantly suffocates the unwary traveler; and whole caravans are sometimes buried by moving clouds of sand raised by the wind. In almost every part of the country, they suffer for want of water.

5. *Soil and Productions.* The soil, wherever it is well watered, exhibits an uncommon fertility; but where this is not the case, it degenerates into a waste, affording barely a scanty support to a few wild animals and the camels of the wandering Arabs. The most fertile district is Yemen, or Arabia Felix, which in many parts is cultivated like a garden. Although so large a part of the country is a mere desert, yet Arabia yields several of the most precious productions of the vegetable kingdom. The forests are mostly confined to the mountains and adjacent valleys. In all Tehama, there is scarce a tree to be seen beside the palm. The coffee plant is generally supposed to be a native of Arabia Felix, where it arrives at the greatest perfection, and whence Europe first derived its knowledge of the berry and its use. The plant grows to the height of 15 or 20 feet, with a stem 4 or 5 inches in diameter, and its copious evergreen foliage, white flowers, and red berries make a pleasing show. The Mocha coffee (*Coffea Arabica*), the species or variety cultivated in Arabia, is distinguished by the roundness and smallness of the grain. Balsam, frankincense, and myrrh, gum, aloes, senna, and tamarinds are also staple commodities of Arabia. The balsam or balm of Gilead is the produce of two species of *Amyris* (*A. Gileadensis* and *A. Opobalsamum*), and myrrh is a gum resin which exudes from a third species (*A. Kataf*). Frankincense is the produce of the oliban (*Juniperus Lycia*), and the ancient Hebrews, as well as the modern Catholics, derived their incense from Arabia. Gum arabic is yielded by the acacia (*A. Arabica*), and the Soccotrine aloes is afforded by the

Aloe officinalis. The Arabian senna is the foliage of a species of cassia (*C. Lanceolata*), and the knowledge of its valuable properties was derived from the Arabian physicians. Tamarinds are the fruit of the beautiful *Tamarindus officina*, which is now cultivated in all the warm regions of the globe. Arabia was formerly thought by Europeans to yield the spikenard, cinnamon, cassia, cordamons, pepper, &c., which are now known to have been imported hither from the Indies, and thence sent to Europe. Cocoa nuts, pomegranates, dates, almonds, figs, oranges, lemons, peaches, and mangosteen, are also among the fruits of Arabia, and in some parts wheat is raised, but the dhoura (*Holcus sorghum*), a coarse kind of millet, is the most common bread-corn.

6. *Towns.* The western part of Arabia, forming the Sherifat of Mecca, belongs to Egypt; the chief town is *Mecca*, celebrated as the birthplace of Mahomet, situated in a dry, barren, and rocky country, 40 miles from the Red Sea. It is supported by the concourse of pilgrims from every part of the Mahometan world. The chief ornament of Mecca is the famous mosque, in the interior of which is the Kaaba, an ancient temple said to have been built by Abraham; it is a plain, square building of stone. The most sacred relic in the Kaaba is the black stone, said to have been brought by the angel Gabriel. The grand ceremony through which pilgrims pass is that of going 7 times round the Kaaba, reciting verses and psalms in honor of God and the prophet, and kissing each time the sacred stone. They are then conducted



Acacia.

to the well of Zemzem, situated in the same temple, where they take large draughts, and undergo a thorough ablution in its holy waters. Another ceremony, considered as of equal virtue, is the pilgrimage to Mount Arafat, situated about 30 miles to the south of the city. The population of Mecca, formerly estimated at 100,000, is now reduced to 60,000, the resort of pilgrims within a few years having been greatly interrupted. *Jidda*, on the Red Sea, serves as the port of Mecca. It is the principal place on that sea, and is strongly fortified and occupied by an Egyptian garrison. Population, 40,000. *Medina* is also a sacred city of the Mahom-



Pilgrims on their way to the Tomb of Mahomet.

tans. One of the mosques contains the tomb of the prophet, and another is venerated as having been erected by him. The inhabitants live by the gifts sent from pious Mussulmans in all quarters, to obtain their prayers, and by the concourse of pilgrims. Population, 8,000. The ancient Edom, or Idumæa, contains some well-watered valleys, and presents monuments of the power and commerce for which it was anciently celebrated. The ruins of its capital, *Petra*, have lately been discovered, which display great magnificence; many of the edifices were cut out of the solid rock.

On the northern part of the Red Sea, stands *Akaba*, a little village, near the site of which is the port of *Estongeber*, from which the ships of Solomon sailed to Ophir, and by which the Phœnicians carried on their commerce with India. To the west are *Mount Horeb*, upon which God appeared to Moses, and commanded him to deliver his countrymen; and *Mount Sinai*, upon which he gave the law. Here is a monastery, armed with cannon, and accessible only by means of a rope.



Mount Sinai.

The Imam of Yemen is a powerful State in the southwest. The capital and residence of the Imam is *Sana*, built in the midst of a fertile plain, and surrounded with high brick walls and towers. Population, about 30,000. *Mocha*, situated near the southern extremity of Arabia, is the principal port on the Red Sea, and the channel through which almost all the intercourse of Europe with this part of

the world is carried on. The great article of export is coffee, which is celebrated as the finest in the world; the population is estimated at 5,000.

The Imam of Mascat on the eastern coast, is likewise an important State. The Imam resides at *Mascat* or *Muscat*, a large city, surrounded with gardens and groves of date trees. It is the centre of an active commerce with India, and a great market for pearls. The government of the Imam is the most tranquil and beneficent of any in the maritime parts of Persia or Arabia. All the ports upon this coast are tributary to him, and he has subjected Socotra, Brava, Zeu, Zibar, and other important points on the African coast. He also holds the islands of Kishma and Ormuz, in the Persian Gulf, and a considerable extent of the Persian coast around Gombroon. This capital has a spacious and secure harbor, though difficult of access, and is become a general depot for the merchandise of Persia, India, and Arabia.

The kingdom of the Wahabites, who a few years since had reduced a great part of the peninsula, but were overthrown by the arms of the Egyptians, is in the region of Nedshed. The capital, *Derriah*, was destroyed in 1816.

There are many other petty States in Arabia, and a great number of the inhabitants, living in small tribes, lead a wandering life ; acknowledging no superiors, but their own chiefs.

7. *Inhabitants, &c.* The Arabs are pastoral, as Bedouins, or they live in towns. They have



Bedouin Arabs.

dark hair and black eyes, and they are well formed and active, though lean. They permit their beards to grow to their full length. The Arabs are spread over Syria, Palestine, Mesopotamia, and Africa. The dress of the rich resembles somewhat that of Turks ; being loose and flowing. The chief peculiarity is the number of caps, which sometimes amounts to 15. The poor, however, wear but 2, and their chief clothing is a linen cloth round the middle, and a woollen one over the shoulders. This also serves them for the covering at night ; though sometimes they sleep in bags, for protection from insects. The poor wear sandals ; the rich, slippers. The Bedouins wear no caps, but only a hood

in their cloak. The Arabian females stain their eyelids with a dark substance, and their cheeks and hands with a yellow color. The language is the Arabic, but it is not spoken in its ancient purity. The Arabic of the Koran is, at Mecca, a dead language. The buildings in the cities have terraced roofs, but they have no beauty. The dwellings of the poor are but huts, with mats covering the floors. The Bedouins dwell in tents. In food the Arabs are temperate in the extreme. The poor satisfy themselves with dates, &c., or a daily meal of hard bread, with milk, butter, or oil. Little animal food is eaten, and the use of wine or spirits is not common ; lizards and locusts are sometimes eaten. Coffee is generally used, and tobacco also in smoking. A species of hemp is also smoked, for its intoxicating qualities. A diet so simple can create few diseases, and the Arabs generally enjoy perfect health. The character of the Arabs is founded upon that of Ishmael. In the desert they are robbers, and in cities cheating is a substitute for robbery. They are, however, very courteous and polite, and hospitable to a proverb. They will set their last loaf before a stranger. It is a bitter sarcasm for one tribe to use against another, "that the men know not how to give, or the women to deny." It is, however, seldom founded in truth. All go armed, and they are probably but little changed since the time of Mahomet, or an earlier period. They are revengeful, and visit offences with full retaliation ; often upon the innocent, if of the same family or tribe with the offender.

The only safe way of traveling in Arabia, as in other countries of Asia and Africa, is in caravans. A caravan is a large association of merchants or pilgrims, who unite for mutual aid and protection to themselves and their camels and goods. The transportation of goods in these countries, though slow, is cheap, compared with European prices. The average weight which camels are made to carry is 600 pounds. The Egyptian caravans travel with a wide front, many others travel in a line. The halt of the pilgrim caravans to Mecca, is by day, and they travel only by night. There are many of these even from Persia and Morocco. The dangers of the desert are such, that in many places the route is indicated by the bones of dead camels. The caravans are under the directions of a chief, though from their discordant materials they are, when attacked, in a state of confusion, each individual acting for himself, and protecting his own property. The predatory tribes on the route sometimes plunder the whole caravan, and at others cut off parts of it. At the halts there is much social intercourse and amusement, the merchants or others visiting and entertaining each other. Caravans, however, since the extension of navigation, and the decline of the Mahometan spirit, have been much curtailed both in magnitude and show. The pace of the camel when traveling is 3 miles an hour ; this is so exact that distances are computed by time ; a march of 6 hours being equivalent to 18 miles.

The education of few exceeds the reading of the Koran ; and the religion of all is bounded by its doctrines. They are intolerant Mahometans, but chiefly of the reformed sect of Wahabees. This seems to be nearly a pure theism ; the founder inculcated great simplicity of life, and subverted the reverence for prophets and saints. The sect are so strict in their simplicity of life, that they will not drink even coffee. The government is what it has been

from remote ages, patriarchal. The sheiks are the chiefs of tribes, but their authority is limited, for the Arabs have a high spirit of freedom. In the cities a stronger government obtains, and the *Sheriffe* of Mecca, or *Imam* of Mascat, are more despotic.

8. *History.* Arabia is famous in history for giving birth to the Mahometan religion. Mahomet, its founder, was born at Mecca, in 569. From the leader of a sect he became a powerful military chieftain, and was proclaimed king at Medina, in 627. He conquered a great part of Arabia and Syria; and the Khalifs, his successors, established their religion and dominion in many countries of Asia, Africa, and Europe. The Turks afterwards became masters of a part of Arabia, but the chiefs who now rule the different provinces of the country are independent except that the Shireffe of Mecca acknowledges a nominal subjection to the Ottoman Porte.



The Flight of Mahomet.

CHAPTER LXIV. PERSIA OR IRAN.

1. *Boundaries.* The present kingdom of Persia, which includes but a part of the extensive country of the Persians, is bounded north by Turkistan, the Caspian Sea and the Russian empire; east by the kingdoms of Herat and Cabul, and by Beloochistan: south by the Gulf of Ormuz and the Persian Gulf, and west by the Ottoman territories. It extends from lat. 26° to 39° N., and from long. 44° to 61° E., having an area of 450,000 square miles, and a population of 9,000,000 inhabitants.

2. *Mountains and Rivers.* Two mountainous chains, belonging to the great Tauro-Caucasian system, traverse the country in different directions; the one stretching east and west to the south of Mazanderan, under the name of the *Elburz* mountains, has an elevation of above 12,000 feet; the volcanic peak of *Demavend* in this chain, is nearly 13,000 feet high; the other chain stretches from northwest to southeast, under the name of the mountains of Curdistan and Luristan. A great part of the country to the south and east of these chains is composed of immense deserts and salt plains. The northwestern part forms a portion of the great table-land, upon which are situated all Armenia, Ajerbijan, Curdistan, &c.; this plateau is from 4,000 to 8,000 feet high. The principal lakes are *Ourmiah* in Ajerbijan, and *Bakhtegan* in Farsistan, both salt. Some rivulets, falling from the mountains, water the country, but their streams are so inconsiderable, that few of them can be navigated even by boats. In consequence of this deficiency, water is scarce; but the defect, where it prevails, is admirably supplied by means of reservoirs, aqueducts, and canals.

3. *Climate.* Those parts of Persia which border upon the mountains near the Caspian Sea, are in general cold, as those heights are commonly covered with snow. In the midland provinces of Persia, the air is serene, pure, and exhilarating; but, in the southern provinces, it is hot, and communicates noxious blasts, which are sometimes mortal.

4. *Soil and Productions.* The soil is far from being luxuriant toward Tartary and the Caspian Sea; but with cultivation it might produce abundance of corn and fruit. To the south of mount Taurus, the country abounds in corn, fruit, wine, and the other necessities and luxuries of life. It affords oil in plenty, senna, rhubarb, and the finest drugs. Great quantities of excellent silk are likewise produced in this country; and the Gulf of Bassora formerly furnished great part of Europe and Asia with very fine pearls. Some parts, near Ispahan especially, produce almost all the flowers that are valued in Europe; and from some of them, particularly roses, they extract waters of a salubrious and odorific kind, which form a gainful commodity in trade. Few places produce the necessities of life in greater abundance and perfection than Shiraz; and a more delightful spot in nature can scarcely be conceived, than the vale in which it is situated, either for the salubrity of the air, or for the profusion of everything necessary to render life comfortable and agreeable. The fields yield plenty of rice, wheat, and barley, which they generally begin to reap in May, and by the middle of July the harvest is completed. Most of the European fruits are produced here, and many of them are superior in size

and flavor to what can be raised in Europe, particularly the apricot, grape, and pomegranate. The last is good to a proverb ; the Persians, in their pompous style, call it the fruit of Paradise.

5. *Minerals.* Persia contains mines of iron, copper, lead, and, above all, turkois-stones, which are found in Khorasan. Sulphur, salt-petre, and antimony, are found in the mountains. Quarries of red, white, and black marble have also been discovered near Taurus. Salt is abundant, and, in many places, the surface is covered with a saline crust when left to itself. Bitumen and naphtha are found in all the countries bordering on the Tigris and Lower Euphrates ; they serve as cement, as pitch for lining the bottoms of vessels, and as a substitute for oil. Petroleum occurs in Kerman.

6. *Divisions.* The kingdom is divided into 11 provinces, at the head of each of which is a *beglerbeg*, or governor-in-chief, and subdivided into districts, administered by *hakims*, or governors. It must be observed, that many of the tribes of Curds and Luris, and several Turkoman tribes in Khorasan are entirely independent. Provinces : Irak-Ajemi, Thabaristan, Mazanderan, including Astrabad, Ghilan, Ajerbijan, Curdistan, Khusistan, Farsistan, including Laristen, Kerman, Khuhistan, and Khorasan.

7. *Cities.* *Teheran*, in the northwestern part of the province of Irak, is now considered as the capital of Persia. It is about 4 miles in circumference, situated in a dreary plain, which is only partially cultivated. It is furnished with a citadel, and surrounded by a strong wall ; but it is not a handsome or well-built town. Within the fortress is the palace, which displays no external magnificence. So excessive is the heat of the summer in this neighborhood, that the king, and the greater part of the inhabitants, annually leave it for 2 or 3 months. The population is then under 15,000 ; but, during the rest of the year, it amounts to 50,000.

Ispahan, formerly the Persian capital, with a population of 700,000 souls, is seated on a fine plain, within a mile of the river Zenderood. It contains some few squares and noble houses ; but the streets are neither wide nor regular, and the town in general is wretchedly built. It bears evident marks of neglect ; yet it is not so deserted, as to have only a small population ; for it is still occupied by about 100,000 persons. The bazars are so extensive, that you may walk for 2 or 3 miles under the shelter which they afford. The best manufactures of the place are those of silk and cotton ; the latter stuff resembles nankin, and is worn by all ranks, from the king to the peasant. The chief ornament of the town is the Palace of Forty Pillars, called also the Persian Versailles. The exhaustless profusion of its splendid materials, may be said to reflect, not merely their own golden or crystal lights on each other, but all the variegated colors of the garden ; so that the whole surface seems formed of polished silver and mother-of-pearl, set with precious stones. In short, the scene seems almost to realize an eastern poet's dream, or some magic vision. The roof is sustained by a double range of columns, each being 40 feet high, and shooting up from the united backs of 4 lions of white marble, while their shafts are covered with arabesque patterns and foliage. The ceiling is adorned with the representations of flowers and animals, in gold, silver, and painting, amidst hundreds of intermingling compartments of glittering mirrors. The New Palace is also a fine edifice. One of the bazars presents a long, covered walk of 2 miles in length, lighted by domes, and lined with shops, but no longer exhibits the bustle and life of former days. Some of the mosques, and the bridges over the Zenderood are also remarkable structures, and there are several colleges or madrasses here. The Jews and Armenians are numerous in Ispahan.

The other principal towns of this province are, *Cashan*, noted for its manufactures of cotton, silk, and copper ware, with 30,000 inhabitants ; *Koom*, celebrated as the burial-place of several Mahometan saints, whose tombs, remarkable for the splendor and richness of their decorations, are visited by thousands of pilgrims from all parts of the kingdom ; *Hamadan*, a flourishing and industrious town, with 30,000 inhabitants, and *Casween*, a large town, with extensive manufactures and a thriving trade, and containing 60,000 inhabitants. Near Hamadan are the ruins of *Ecbatana*, once the magnificent capital of the Medes ; the remains of the palace, which was nearly a mile in circuit, and of which the woodwork was of cedar and cypress, overlaid with silver and gold, and the tiles of silver, are still visible. *Balfrouch*, in Mazanderan, is a large town with 100,000 inhabitants, mostly engaged in trade and manufactures ; its bazars are of vast extent. *Asterabad*, on the Caspian Sea, with 40,000 inhabitants ; *Sari*, 30,000 ; and *Recht*, 60,000, with extensive silk manufactures, are the other principal places in this quarter.

Tauris or *Tabriz* stands on a plain bounded by mountains, which, though barren, recede into a well-cultivated vale. In the 17th century it was considered as the second city in Persia ; but,

if it had not become the principal residence of the late heir apparent of the Persian crown, it would by this time have declined into insignificance. He improved the fortifications, formed a great arsenal, and built a palace for himself, encouraged the industry of the inhabitants, and promoted European arts and inventions. The population of the town is about 45,000. *Ardebil* was formerly a large and flourishing town; but it has now only 4,000 inhabitants, though it possesses a great object of Moslem veneration, namely, the magnificent mausoleum of that sanctified sheik who was the founder of the Sefi family.

Kermanshaw, in Curdistan, stands in the midst of a delightful district, and is surrounded by walls. Its prosperity is due to its commerce and manufactures: Population, 40,000. *Shuster*, the capital of Khusistan, has 20,000 inhabitants. In its neighborhood, are the ruins which mark the site of the ancient Susa. It was the winter residence of the ancient Persian kings, and was 15 miles in circuit; here is shown the tomb of the prophet Daniel, to which the Jews make pilgrimages.

Shiraz, in a delightful valley of Farsistan, is meanly built, but contained some magnificent edifices previously to 1824, when most of its principal buildings were destroyed by an earthquake. The environs of Shiraz have been celebrated by the Persian poets for their fine wines and beautiful scenery, and the city is styled by the Persians, the seat of science, on account of the literary taste of its inhabitants. Population, 30,000. *Yezd*, in the interior, on the great caravan routes, the centre of a great inland trade, and the seat of extensive manufactures, with 60,000 inhabitants; and *Busheer*, the principal port on the Persian Gulf, with 15,000 inhabitants, are the other principal places of this province. To the northeast of Shiraz are the celebrated ruins of *Persepolis*, covering a great extent of country; those called by the Persians *Chilminar* (that is, the Forty Columns), are thought to be the remnants of the ancient palace of the Persian kings; they consist of columns, and walls constructed of vast blocks of marble, and covered with reliefs and inscriptions; tombs cut in the rock, and covered with inscriptions and sculptures, are also found in different directions.

Meshed, though the capital of Khorasan, is not so populous or flourishing as Herat, having only about 40,000 inhabitants. Its manufactures, it is said, are not extensive; but it still retains its former celebrity for some articles. Its velvets are considered as the best in Persia; but its silks and cottons are less famous. Sword-blades of good temper are here fabricated, their excellence being derived, it is said, from the skill of many descendants of a colony of artisans, transplanted from Damascus to this province by Timour. The city is built of sun-dried bricks; the houses in general make a wretched appearance, and the apartments are meanly furnished; and a great part of the city is in ruins. Yet some of the public buildings have an air of magnificence. The tomb of Ali, the patron saint of Persia, in the construction of which the genius of the Persian artists and the superstition of the devotees have lavished everything that talents and wealth could contribute to render it magnificent, is much visited by pilgrims.

8. *Revenues*. The king claims one third of the cattle, corn, and fruit, of his subjects, and likewise a third of silk and cotton. No persons, of whatever rank, are exempted from severe taxations and services. The governors of provinces have particular lands assigned to them for maintaining their retinues and troops; and the crown lands defray the expenses of the court, the king's household, and great officers of state. The water that is let into fields and gardens, is subject to a tax; and foreigners, who are not of the established religion, pay a ducat a head. Yet, according to Mr. Kinneir, the revenue does not far exceed 3,000,000 sterling.

9. *Army*. The Persian army is an untrained rabble, who more commonly plunder their own countrymen than their enemies. In the late war with Russia, the troops in the field, both regular and irregular, amounted to less than 45,000 men.

10. *Commerce and Manufactures*. Some trade is carried on with India through the port of Bushire, on the Persian Gulf; and there are about a dozen vessels on the Caspian engaged in commerce with the Russians. Raw and manufactured silk and cotton goods, carpets, and shawls, are exported. Some cutlery and coarse glass are also manufactured. The trade with Turkey and Tartary is carried on by caravans.

11. *Population*. There are no data from which to estimate the population, except the loose conjectures of travelers. The country is thinly inhabited. The stationary population may be about 10,000,000.

12. *Inhabitants*. There are many separate tribes of people composing the population of Persia. Beside the Tadshiks or Persians proper, there are many Parsees, Kurds, and Lurians.

who also belong to the same family. Turkomans, in the northeast, Arabs, in the southwest, Armenians, Jews, &c., are also numerous, and the Turkomans are now the dominant nation, although the mass of the population is Persian. The Turkish is the common language of the country, the Parsees only speaking the Persian, which is, however, the language of the literature of an earlier period. Generally speaking, the Persians are a handsome race, even



Persians.

when unmixed; but the Georgian, Circassian, and Mingrelian slaves are so common, that there are few of the higher classes, which are not descended from them. The Persian dress has been considered effeminate. The men wear a long robe, reaching nearly to the feet, and under this a vest tight to the hips, and then flowing like a petticoat. They wear wide trowsers and silk or calico shirts. Robes of various kinds are common, and a long muslin sash is worn over the whole dress. In this is stuck a dagger, and no Persian considers himself fully dressed without a sword. All classes wear a black lambskin cap, about a foot in height. The head is shaved except a tuft on the head, and behind the ears. The beard is dyed black. The dress of the females is simple. In winter a close-bodied robe, reaching to the knees, and buttoned in front, is worn over the vest. In summer a silk or muslin shift is worn, loose velvet trowsers, and a vest.

The head is covered with a black turban, over which a cashmerian shawl is thrown as a veil. The Persian language is well fitted for poetry. It has an affinity with the German and Gothic languages. The general food of the Persians is simple. Coffee is general, and tobacco is smoked by all classes. The delicious wines of Persia are much used, in spite of the prohibition of the Koran. The Persians have been called, probably by a Frenchman, the Parisians of the East, but they have more resemblance to the Greeks. They are volatile, cheerful, versatile, cunning, lying, and dishonest, but eminently social. They show great respect for age. They abound in complimentary phrases, and their politeness, like that of the other Asiatics, is formal, though less grave than that of the Turks. They are affable, and fond of conversation; in which fables and apologues abound.* Their manner of salutation is to touch the

* The following fable is a fair specimen of the Persian figurative mode of speech.

"In former days there was an old woman, who lived in a hut more confined than the minds of the ignorant, and more dark than the tombs of misers. Her companion was a cat, from the mirror of whose imagination the appearance of bread had never been reflected, nor had she from friends or strangers ever heard its name. It was enough that she now and then scented a mouse, or observed the print of its feet on the floor; when, blessed by favoring stars, or benignant fortune, one fell into her claws;

She became like a beggar who discovers a treasure of gold;

Her cheeks glowed with rapture, and past grief was consumed by present joy.

"This feast would last for a week or more; and while enjoying it she was wont to exclaim,—

'Am I, O God! when I contemplate this, in a dream or awake?

Am I to experience such prosperity after such adversity?'

"But as the dwelling of the old woman was in general the mansion of famine to this cat, she was always complaining, and forming extravagant and fanciful schemes. One day, when reduced to extreme weakness, she, with much exertion, reached the top of the hut; when there, she observed a cat stalking on the wall of a neighbor's house, which like a fierce tiger advanced with measured steps, and was so loaded with flesh, that she could hardly raise her feet. The old woman's friend was amazed to see one of her own species so fat and sleek, and broke out in the following exclamation:

Your stately strides have brought you here at last; pray, tell me from whence you come?

From whence have you arrived with so lovely an appearance?

You look as if from the banquet of the Khan of Chatâi. Where have you acquired such a comeliness? and how came you by that glorious strength?

The other answered, 'I am the Sultan's crum-eater. Each morning, when they spread the convivial table, I attend at the palace, and there exhibit my address and courage. From among the rich meats and wheat-cakes I cull a few choice morsels; I then retire and pass my time till next day in delightful indolence.'

"The old dame's cat requested to know what rich meat was, and what taste wheat-cakes had? 'As for me,' she added, in a melancholy tone, 'during my life, I have neither eat nor seen anything but the old woman's gruel and the flesh of mice.' The other smiling, said, 'This accounts for the difficulty I find in distinguishing you from a spider. Your shape and stature is such as must make the whole generation of the cats blush; and we must ever feel ashamed, while you carry so miserable an appearance abroad.

You certainly have the ears and tail of a cat, But in other respects you are a complete spider.

Were you to see the Sultan's palace, and to smell his delicious viands, most undoubtedly those withered bones would be restored; you would receive new life; you would come from behind the curtain of invisibility into the plain of observation:

When the perfume of his beloved passes over the tomb of a lover,

Is it wonderful that his putrid bones should be re-animated?

"The old woman's cat addressed the other in the most supplicating manner: 'Oh, my sister!' she exclaimed, 'have I not the sacred claims of a neighbor upon you? are we not linked in the ties of kindred? what prevents your giving a proof of friendship, by taking me with you when

hands, and then raise them to the forehead. The king, however, and great officers, are saluted by thrice bowing to the ground. There is much difference between the manner of life and character of the inhabitants of the towns and the country. The latter are brave and hardy, while the former are timid and effeminate. The females are generally instructed in reading, embroidery, and household affairs, of which they have the sole management.

The Persian amusements are hunting, which they follow with great zeal, and various exhibitions of dancing, juggling, story-telling, &c. Antelopes are hunted with hawks and greyhounds. The hawk alights upon the head, disordering the motions of the antelope, which the hound is therefore able to overtake. Education is generally diffused in Persia. Children generally can read and write; but there is little instruction in the higher branches. The arts and sciences have hardly an existence. The most general and popular literature is contained in poems and romantic tales. Ferdoosee, Hafiz, and Saadi are poets, admired in European translations, and the two former are as well known to the common people as Burns to the lower class in Scotland. The religion is the Mahometan, but the Persians are of the sects of the Shieahs. They believe that Ali, and not Omar, was the rightful successor of Mahomet. There is also some slight difference, in form, as in the manner of prostration, &c., which breeds much hatred between the Persians and Turks. Soofeeism, a sort of mystical creed, accommodates itself to all forms of religion, is gradually undermining Mahometanism in Persia, while it leaves nothing definable in its place. There are few Armenian, Nestorian, Jacobite, and Catholic Christians. There is a Catholic Mission, but few converts are made. The Persians, however, seem more easy to be led to a better creed than the other Asiatics. They willingly discuss the merits of different religions, and are thus open to conviction, and may be enabled to choose the best. The Parsees or Guebres are called Fire Worshippers, because they venerate fire as the emblem of the Supreme Being; their sacred book is called the Zendvesta; it teaches, that from the Supreme Being or the Eternal One, have emanated Ariman, the genius of evil, and Oromaz the genius of good.

Polygamy, as in other Mahometan countries, is general with the wealthy; for the poor can generally support but one wife. Marriages are generally contracted by the parents, while the parties are young. After funerals, the friends of the deceased mourn 40 days, during which they leave viands on the grave for the angels, who are supposed to watch it. They also expostulate with the dead for having died. The government of Persia is an absolute, oriental despotism, with the absurd and peculiar feature, that the edicts of the monarch are unchangeable. He cannot alter them himself, so that he is bound by nothing but his own edicts.* The laws are founded on the precepts of the Koran. Sanguinary and barbarous punishments are common. The higher classes of people are punished frequently by mutilation or loss of eyes, and the slight

next you visit the palace? Perhaps from your favor plenty may flow to me, and from your patronage I may attain dignity and honor.

Withdraw not from the friendship of the honorable;
Abandon not the support of the elect.'

"The heart of the Sultan's crum-eater was melted by this pathetic address; she promised her new friend should accompany her on the next visit to the palace. The latter, overjoyed, went down immediately from the terrace, and communicated every particular to the old woman, who addressed her with the following counsel:

"Be not deceived, my dearest friend, with the worldly language you have listened to; abandon not your corner of content, for the cup of the covetous is only to be filled by the dust of the grave; and the eye of cupidity and hope can only be closed by the needle of mortality and the thread of fate.

It is content that makes men rich:

Mark this, ye avaricious, who traverse the world;
He neither knows nor pays adoration to his God,
Who is dissatisfied with his condition and fortune.'

But the expected feast had taken such possession of poor puss's imagination, that the medicinal counsel of the old woman was thrown away.

"The good advice of all the world is like wind in a cage,
Or water in a sieve, when bestowed on the headstrong."

"To conclude, next day, accompanied by her com-

panion, the half-starved cat hobbled to the Sultan's palace. Before this unfortunate wretch came, as it is decreed, that the covetous shall be disappointed, an extraordinary event had occurred, and, owing to her evil destiny, the water of disappointment was poured on the flame of her immature ambition. The case was this; a whole legion of cats had, the day before, surrounded the feast, and made so much noise, that they disturbed the guests, and in consequence the Sultan had ordered, that some archers, armed with bows, from Tartary, should, on this day, be concealed, and that whatever cat advanced into the field of valor, covered with the shield of audacity, should, on eating the first morsel, be overtaken with their arrows. The old dame's puss was not aware of this order. The moment the flavor of the viands reached her, she flew, like an eagle to the place of her prey.

"Scarcely had the weight of a mouthful been placed in the scale to balance her hunger, when a heart-dividing arrow pierced her breast.

A stream of blood rushed from the wound.

She fled, in dread of death, after having exclaimed,

'Should I escape from this terrific archer,

I will be satisfied with my mouse and the miserable hat of my old mistress.

My soul rejects the honey if accompanied by the sting.
Content, with the most frugal fare, is preferable.'

* The preamble of a treaty with Great Britain styles the Persian monarch the "High King, whose court is like that of Solomon; the asylum of the world; the sign of the

offices of the lower class are visited with the bastinado. Theft, however, is severely punished. Kigneir saw several thieves built into a wall, and left there to perish.

The antiquities of Persia are the remains of a race more energetic than the present inhabitants. There are few architectural monuments of modern date, and the manner of building is not distinguished for convenience or elegance. But the ruins of the ancient cities are imposing



Ruins of Persepolis.

and grand, especially those of Persepolis. Next to the pyramids of Egypt and the colossal ruins of Thebes, they have arrested the greatest attention, and like them they still remain an enigma, their history, dates, and object being involved in the gloom of antiquity. The royal palace, or the *Takh-ee-Jumsheed*, consists of a number of superb buildings, forming both a palace of ample magnitude, and a citadel or bulwark for the capital, on a situation of the most commanding aspect. It consists of an artificial platform, 1,426 feet long by 802 broad, on the south, and 926 feet on the north side, chis-

eled out of a mountain, and having a higher part of the same mountain connected with its eastern side, the other three sides presenting perpendicular precipices from the subjacent plain. On the mountains to the east, called by Diodorus the royal mount, and which still preserves the name *Shah-koh*, or royal mount, are the tombs of the kings, excavated in the rock. The only way to the summit is by an ascent of steps on the western face, forming a double flight. The steps are broad and shallow, 10, and sometimes 14, being cut out of one block of marble. So easy is the ascent, that 6 horsemen may ride abreast to the top of the platform. Niebuhr declares this staircase to be the most splendid, sublime, and durable ever reared by human hands, many of the stones being 27 feet long, and many on the wall 55 feet long by from 4 to 6 feet high. On reaching the platform, the first objects that meet the eye are 2 colossal bulls, of a noble form and attitude, sculptured on the lofty sides of an enormous portal. Other symbolical representations in granite, in basso-relievo, are found in different places. On a near approach to the hall of columns, the eye is riveted by the grandeur and beautiful decorations of the double staircase, which leads up to them. Beyond this, and rising from the landing-place, is another double staircase, but smaller; the windings of these staircases are covered with sculptures of human figures, and a duplicate representation of a combat between a bull and a lion. What artist sculptured the wonderful procession on the winding walls of the staircase is unknown, but it seems to be of Ionian workmanship. At any rate, the finishing of the parts, and the grace and truth of the bass-reliefs, proclaim a refinement worthy of the master chisels of Greece. As for the platform itself, nothing can be more striking than the view of its ruins; so vast, so magnificent, so fallen, so mutilated, and silent. But every object is as desolate as it is beautiful; awakening the most poignant feelings, that a pile of such indefatigable labor, such complicated ingenuity, should be left untenanted and unnoticed in the desert, or if noticed, be doomed to the predatory mallet of some ruthless bigot or ignorant barbarian. This immense pile is 380 feet long from east to west, and 350 from north to south; the greater part of which space is covered with broken capitals, shafts of pillars, and countless fragments of buildings, some of which are ornamented with the most exquisite sculptures.

13. *History.* Persia, or Iran, long played a prominent part in the early history of the world. The ancient empire of Cyrus was overthrown by the Macedonians; and that of the Parthians, which succeeded the Macedonian empire, was conquered by the Saracens and Turks, in the 7th cen-

power of God; the jewel in the ring of kings; the ornament in the cheek of eternal empire; the grace of the beauty of sovereignty and royalty; the king of the universe, like Caberman; the mansion of mercy and justice; the phoenix of good fortune; the eminence of never-fading prosperity; the king powerful as Alexander, who has no

equal among the princes, exalted to majesty by the heavens on this globe; a shade from the shade of the Most High; a Khoosroo, whose saddle is the moon, and whose stirrup is the new moon; a prince of great rank, before whom the sun is concealed."

tary. Six centuries later, Persia was overrun by the Mongols, who retained possession of the country for 200 years, when it fell into the hands of the Turcomans. The empire has, during the last century, suffered much from foreign and civil wars.

CHAPTER LXV. CABULISTAN, OR AFGHANISTAN.

1. *Boundaries and Extent.* Afghanistan, or the kingdom of Cabul, is bounded on the N. by Herat and Turkistan; on the E. by the land of the Seiks, in Hindostan; on the S. by Beloochistan; and on the W. by Persia. It extends from lat. 28° to 36° N., and from long. 59° to 72° E., having an area of 146,000 square miles, and a population of 4,200,000 souls.

2. *Mountains. Rivers.* The country is an elevated table-land, from 4,000 to 6,000 feet high; above this rise the summits of the *Hindoo-Koo Mountains*, which traverse the kingdom from east to west, reaching an elevation of above 20,000 feet; a chain branches off to the south, near Cabul, and is known under the name of the *Soliman Mountains*, extending in two parallel ranges into Beloochistan. The principal river is the *Helmend*, which runs into Lake Zerrah.

3. *Productions.* Although much of the country consists of high, bleak hills, unfitted for tillage, and the southwestern part is a vast desert, there are many fertile valleys and warm plains, which are populous, productive, and well cultivated. The inhabitants are chiefly wandering shepherds. Few Indian plants inhabit Cabulistan, but those of Europe are in great abundance there. The vine, the peach, and apricot grow wild, and seem to be indigenous. The prevailing trees on the mountains are various species of pine, one of which bears cones as large as artichokes, and seeds as big as pistachio nuts. There are likewise cedars, a gigantic cypress, and several kinds of oak, with the walnut, pistachio, and terebinth. On the uncultivated plains, the most common trees are the mulberry, the tamarind, the plane, the poplar, and several sorts of willow. Fruits and corn are produced in the eastern part, and in the low, hot districts of the East, sugar, ginger, cotton, dates, millet, &c., are raised. Among the most valuable and remarkable productions of the eastern parts of the country is the assafoetida plant; its stem is from one to two and a half feet high, and when ripe it produces a cauliflower-like head. The milky juice extracted near the root yields the well-known gum. The natives stew or roast the stem, and boil or fry the head and leaves with *ghae*, or clarified butter, and in this way the smell is even stronger than that of the drug, and no one but those accustomed to it can bear its offensive effluvia. Lead, iron, and salt are abundant.

At Cabul, where the summers are not so hot, and the winters, without being severe, are colder, and accompanied with frequent falls of snow, the fruit-trees of Hindostan are not seen, while those of Europe abound. In general the climate must be regarded as too cold for tropical productions.

4. *Divisions.* The kingdom is composed of two great regions, — Afghanistan, which is divided into 7 provinces, and Sistan, or Segistan.

5. *Towns.* *Cabul*, the capital, is situated in a fertile and well-watered plain, celebrated for its fine climate. The town is well built, but the houses are mostly of wood. Here is a citadel built upon a low hill, and containing a magnificent royal palace; the bazars are also vast buildings, and the commerce, till the recent civil wars, was extensive. The population, which was 80,000, is probably likewise diminished by the troubles which have distracted the country.

Ghizneh, or *Gazna*, once the capital of an empire reaching from the Tigris to the Ganges, is now fallen into decline, and its magnificent baths, rich palaces, superb mosques, and numerous bazars, have disappeared. It now contains about 8,000 inhabitants.

Candahar, a fortified place in a fertile and highly cultivated plain, is a large and populous city, with about 100,000 inhabitants. It is regularly laid out and well built, and is the centre of an active trade. It contains a royal palace, and in the centre of the city is the *sharshet*, a vast rotunda, surrounded with shops, to which all the principal streets converge. Candahar has lately been occupied by the English. *Peshawer*, the capital of the kingdom of Cabul previous to its late dismemberment, stands in a fertile plain, bounded by the loftiest ranges of the Hindoo-Koo and Soliman mountains. The city is rudely built, and the few good edifices are much decayed; the number of its population is also much reduced, in consequence of the late revolutions in the country; but it presents a picturesque aspect, and a motley population of Indians, Persians, Tartars, &c.

Segistan contains only small towns, and consists principally of a great desert.

6. *Inhabitants.* The population consists chiefly of Afghans, a race nearly allied to the Per-

sians. In the towns are many Persians and Indians, the Afghans never exercising a trade. The latter occupy themselves with war, robbery, hunting, and raising herds. They are rude, vindictive, and rapacious, but faithful, hospitable, laborious, open, and brave. Their religion is Mahometanism, but they are not bigoted. The language nearly resembles the Persian, and the educated Afghans are familiar with Persian literature. Education is carefully provided for among them, every village having its school, which is attended by almost every boy.

The usual dress is a sort of frock, reaching below the knee, and loose, dark cotton trousers; the head is covered with a low, flat cap of black silk, and the feet with half-boots, laced in front. The houses of the rich are surrounded by high walls, inclosing courts and gardens, and they are provided with carpets, some glass windows, &c. Those of the lower class, consist of a single room, without chairs or tables, their place being supplied by carpets and felt cushions. The pastoral tribes live in coarse, woolen tents.

The Afghans are fond of all sorts of boisterous amusements, particularly those which involve great display of bodily activity. Hunting is, as it were, the rage over all Afghanistan, and the people pursue it not only in all the known and usual modes, but in others peculiar to the country itself. Sometimes a whole neighborhood assembled forms a circle, and sweeps together within it all the game belonging to a certain district. In the villages much delight is taken in the *attum*, a hearty and noisy dance, consisting in violent movements, in which both sexes join. They delight in the fighting of quails, cocks, and other animals; and they amuse themselves at marbles, hopping on one foot, and other games considered with us as suited only to children.

Although the Afghans are a sober and temperate people, they are enabled to live well, by the extreme cheapness of all provisions, particularly fruit and vegetables. They are also social and hospitable; and even the poorer classes, when they can afford to kill a sheep, invite their neighbors to partake. The dishes are merely the mutton with the broth in which it has been boiled; the drink is buttermilk or sherbet; and conviviality is chiefly promoted by the use of tobacco. At the tables of the great, rich pilaus and dishes variously dressed, are presented on trays, after the Persian manner, and ornamented with gold and silver leaf. The Afghans talk a good deal at table, usually in a somewhat grave style, though not without occasional sallies of mirth. One of their favorite amusements consists in walks and collations in the numerous gardens that surround their cities, particularly Cabal, the views from which are particularly beautiful.

The whole nation of Afghans, like the ancient kingdom of Israel, is divided into tribes, which continue much unmixed, each under its own peculiar government, with little interference from the royal government. The king is, in fact, merely the khan of the Dooranees, the ruling tribe, as being that of Ahmed Shah, the founder of the empire, and his powers over the other tribes, are confined to nominating their khans, levying troops, and collecting the revenue. The Ghiljies, a proud, fierce, and warlike tribe, are the rivals of the Dooranees, and submit with impatience to their supremacy. The Berdooranees, Eusofzies, Sheraunees, Vizerees, are among the principal tribes. The internal government of the tribes is republican; they are divided into separate clans, and each clan has its chief or khan, chosen from the oldest family. The khans generally act in council with the heads of families. The people are much attached to their respective tribes, though but little to the khans, and their republican spirit has preserved them from the general debasement in the East, caused by the oriental despotisms. When an English traveler had expatiated on the advantages of a firm and steady government, in the security it gives from alarm, discords, and bloodshed, the Afghans replied, "We are content with discord, we are content with alarms, we are content with blood, but we shall never be content with a master."

7. *History.* This region, under the names of Arachosia, Paropamisus, and Drangiana, was looked upon by the ancients as a rude and barbarous tract, but in modern times it has repeatedly played an important part in history. In the 11th century Mahmood, of Ghiani, made that city the capital of an empire, which extended from the Indus to the Euphrates; but his dynasty was crushed by the conquests of Timur, and Cabal became the capital of the great Mogul empire, under some of his successors. In the close of the 17th century the Afghans conquered Persia; Nadir Skah, however, not only drove them out of that country, but subdued them in turn. On his death, Ahmed Shah in the middle of the last century, delivered his country from the Persian yoke, and conquered some of the finest provinces of Western India, including Lahore, Moutan, and Cashmere, to which was also added Balkh. Since his death internal dissensions have broken the power of this great empire; the warlike and able Ranjeet

Shah, Chief of Lahore, who died 1839, seized Cashmere, Moulton, and other districts, the khans of Balkh and Beloochistan, and the princes of Sindh took this opportunity to secure their independence, and one branch of the royal family erected an independent throne at Herat. The English lately occupied Afghanistan, deposed the king, and gave the crown to a creature of their own. But the Afghans rose, destroyed one of the occupying armies and drove the English from the country.

CHAPTER LXVI. KINGDOM OF HERAT.

1. *Boundaries.* The kingdom of Herat is bounded north by Turkistan; south and east by Cabul, and west by Persia. It lies between 33° and 36° N. lat. and 60° and 67° E. long., having an area of 66,000 square miles, and a population of 1,500,000. It is an elevated table-land, intersected by lofty mountains, and inhabited by Afghans, and some tribes of Turcomans.

2. *Towns.* *Herat*, the capital, is a large and strongly fortified town, situated in a populous and highly cultivated valley. It is the centre of a great commerce, and its manufactures are numerous and flourishing; the celebrated Khorasan sabres are made here. Population, 100,000. *Bamiam*, a small city, is chiefly remarkable for the immense number of excavations in the rocks in its vicinity; they are said to amount to 12,000; here are also 2 colossal statues, 50 cubits high. The people, and their manners, customs, and condition, do not differ from those of Afghanistan, from which Herat is only recently and politically detached.

CHAPTER LXVII. BELOOCHISTAN.

1. *Boundaries, &c.* This country, which is occupied by confederated tribes of Beloochis, is bounded north by Cabul and Persia; east by the country of the Seiks and Sindh; south by the Arabian Sea, and west by Persia. It lies between lat. 25° and 30° N., and between long. 58° and 69° E., having an area of 140,000 square miles, and 2,000,000 inhabitants. It is traversed by the Soliman Mountains, and a considerable part of the country is a vast desert. The rivers are small, and mostly dry up in the hot seasons.

2. *Divisions and Towns.* The Beloochis resemble the Afghans in their mode of life, and there are few considerable towns. The several tribes of the confederacy are governed by their own chiefs or *serdars*, but they recognise the supremacy of the *serdar* of Kelat, a town of about 20,000 inhabitants, is situated upon a high table-land, in a well cultivated district; the climate, owing to the elevation, is cold. It has some commerce, and its bazars are large. *Gundava* is the residence of the *serdar* in winter; it has about 16,000 inhabitants, and is well built.

This country, the Gedrosia of the ancients, is often described under the name of *Mekran*, as a province of Persia; but it has no connexion with that State, and besides Mekran, it includes Cutch, Gundava, Lus, Sarwan, Jhalawan, and other districts.

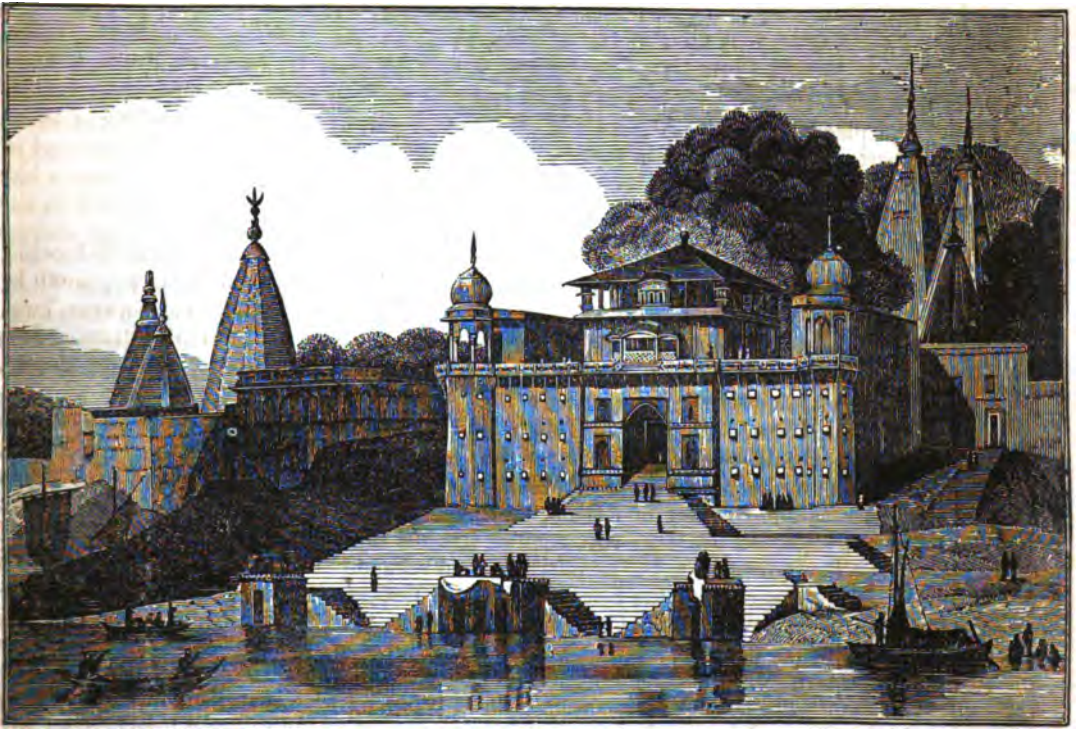
3. *Inhabitants.* The inhabitants of these provinces are, with few exceptions, wandering in their habits of life, there being few towns or even considerable villages. The Beloochis and the Brahooes, as far as is known, constitute the bulk of the population. The Beloochis are brave, hospitable, honorable robbers, esteeming theft disgraceful, but making *chepaos* or predatory excursions to a great distance to burn villages, carry off slaves, and plunder. Their manners are pastoral; they live in *ghedans* or tents, made of black felt or coarse blankets, stretched over a frame of wicker-work. Like other pastoral nations, they are indolent and fond of hunting; unless occupied by some favorite amusement, they will spend whole days in lounging from one ghedan to another, smoking and gambling. They have commonly two wives, and sometimes more. They treat their women with attention and respect, and are not so scrupulous about their being seen as most Mahometans. Their language nearly resembles the modern Persian, and is of kindred origin. The Beloochis are Sunnites.

Living with them, but quite distinct from them in most points, are the Brahooes, who are mild, inoffensive, quiet, and industrious; not less hospitable, nor less faithful in adhering to their promises, but less addicted to revenge, cruelty, and avarice. They are, perhaps, the aborigines; they lead a pastoral life, roaming from one part of the country to another, according to the season; and also changing their places of abode in quest of pasturage. Some of them

are husbandmen, and till large tracts of land, selling grain, cheese, ghee, coarse blankets, felt, and carpets, the produce of their industry. The tasks of the family are divided among the members, much in the European manner. The men tend the flocks, and till the ground; the women milk the herds, make butter, cheese, felt, and coarse cloths. The language of the Brahoes is different from that of the Beloochis, and seems to resemble some of the Indian dialects. The western part of Mekran is infested by banditti, called Loores, of a much baser character than the usual predatory hordes of Asia. They have renounced every religious belief, and, maintaining that men are born to eat, and sleep, and die, and be forgotten, they abandon themselves without scruple to every species of profligacy and depravity.

The government of Kelat is despotic, but limited by a feudal system. The serdars, or chiefs of the tribes are bound to furnish their quota of troops, and to attend the court. They are partly hereditary and partly chosen by the tribes themselves, and their authority is limited.

CHAPTER LXVIII INDIA, OR HINDOSTAN.



View near Delhi.

1. *Boundaries.* This great region is bounded on the N. by the Chinese empire; on the E. by the Birman empire and the Bay of Bengal; S. by the Indian Ocean; and W. by the Arabian Sea, Cabul, and Beloochistan. It extends from 8° to 34° N. lat., and from 67° to 92° E. long., being 1,500 miles in its greatest breadth, and 1,800 miles in length from north to south. Its area, which exceeds 1,400,000 square miles, is more than one third that of all Europe, and it contains 140,000,000 inhabitants.

2. *Mountains.* The *Himala Mountains*, which extend along its whole northern boundary, contain the loftiest summits in the world. They rise in successive stages from the champaign country, forming several parallel ridges, until the principal and loftiest range shoots its colossal summits up into regions of perpetual snow. This principal chain separates the valleys of Serinagore, Nepaul, and Bootan, from Tibet, and attains an elevation of 26,000 and 28,000 feet. The *Chamoulari*, on the frontiers of Bootan, is the highest known mountain in the world, being 28,200 feet in height; the *Dhaulagiri*, on the frontiers of Nepaul is but little inferior in elevation. A lower and parallel chain runs along the southern mar

of the valleys above mentioned, separating them from the great plain of the Ganges. The Deccan or Peninsula which lies to the south of that plain, is traversed by several chains of inferior elevation. The *Western Ghats* extend for several hundred miles along the western shore, and in some places are supposed to reach the height of 10,000 feet. The *Eastern Ghats*, rising behind the eastern coast, are of a less lofty and rugged description than the preceding. Along the northern border of the Deccan, stretches a chain called the *Berar Mountains*; and in the south, the *Nilgherry Mountains* connect the Eastern and Western Ghats.

3. *Rivers.* The *Ganges*, the principal river of India, rises on the southern declivity of the northern or principal chain of the Himala Mountains, and after a course of 800 miles, issues from the lower range of mountains into the open country. Hence this great river, which the Hindoos hold in religious veneration, believing that its waters have a virtue which will purify them from every transgression, flows through delightful plains, with a smooth, navigable stream from 1 to 3 miles wide, toward the Bay of Bengal, into which it runs by 2 large, and a multitude of smaller channels, that form and intersect a large, triangular island, the base of which, at the sea, is near 200 miles in extent. The whole navigable course of this river, from its entrance into the plain to the sea, extending with its windings above 1,300 miles, is now possessed by the British, their allies, and tributaries. The western branch, called the Little Ganges, or river of *Hoogly*, is navigable for large ships. The Ganges receives 11 rivers, some of which are equal to the Rhine, and none inferior to the Thames; the principal tributary is the *Jumna*, which has a course of 800 miles. The inundations of the Ganges are watched with great interest by the natives; they take place in July and August, and are caused in part by the rains and melting of snow in the upper part of its course, and in part by the rain which falls in the plain. By the end of July, all the lower parts of Bengal contiguous to the Ganges are overflowed, and form a lake of more than 100 miles in breadth. The *Brahmapootra* or *Burrampootra* is supposed to rise in the mountains to the east of Assam, and it joins the eastern branch of the Ganges; the sources are as yet unexplored.

The *Indus* or *Sind* rises on the northern declivity of the Himala Mountains, in Little Tibet, and after taking a northerly direction for a considerable distance, it breaks through the mountains, and flows south into the Arabian Sea. Its length is 1,700 miles, and it discharges its waters by a single mouth, but sends off a large branch to the Gulf of Cutch. Its principal tributary is the *Punjab*, formed by the confluence of 5 rivers, of which the *Sutlege*, with a course of 900 miles, and *Jylum*, 750 miles in length, are the chief. In Southern Hindostan, the principal rivers are the *Nerbudda*, which forms the northern boundary of the Deccan, and flows into the Gulf of Cambay, after a course of 750 miles; the *Godaveri*, which rises in the Western Ghats, and runs into the Bay of Bengal, through a distance of 850 miles; and the *Krishna*, 700 miles in length, and *Cavery*, 400, running into the same bay.

4. *Surface.* The northern part is mountainous and rugged; but between the parallel ridges of the Himala Mountains extends the beautiful girdle of Bootan, Nepaul, Serinagore, and Cashmere, comprising a series of charming valleys and plains, at the height of from 4,000 to 7,000 feet. The valley of the Ganges, comprising the main body of India, is composed of a great plain of matchless fertility, extending from the Brahmapootra to the great desert, which separates the sources of the Jumna from the tributaries of the Indus, and from the mountains of the high lands of central India; it is 1,200 miles long, and from 300 to 400 broad, and is a continuous level of exhaustless richness, over which majestic rivers diffuse themselves in a slow and almost insensible course. Westward of this plain, stretches the elevated desert of Ajmere, of moving sand, extending 600 miles from north to south, and 300 from east to west, and bearing in some parts coarse grass or prickly shrubs, and interspersed with some productive tracts. West of this, is the rich plain of the Punjab, in which the 5 tributaries of the Indus produce the luxuriant fertility of the Gangetic plain. Around the Nerbudda is the table-land of Central India, comprising Malwa, Candeish, and Gundwana, having an elevation of from 1,200 to 2,000 feet. Further south, lies the table-land of the Deccan, which is from 1,000 to 3,000 feet high. Below this, on the east and west, the coast sinks down to a flat, low country.

5. *Climate.* The varying degrees of elevation produce here the same changes in regard to temperature, that arise in some regions from great differences of position upon the earth's surface. The littoral plains and the high table-lands of the Deccan, the flat lands of the Ganges, and the mountainous regions of the north, present striking contrasts. The vast plains exhibit the double harvests, the luxuriant foliage, and even the burning deserts of the torrid zone; the

lower heights are covered with the fruits and grains of temperate climates ; the higher elevations are clothed with the fine forests of northern regions ; while the loftiest pinnacles are buried beneath the perpetual snows of the Arctic zone. The low, hot countries are commonly unhealthy for Europeans, and sanitary stations have been established in the hill provinces, to which those who are suffering from fever, dysentery, or liver complaint, the diseases engendered in the former, remove for the restoration of their health. In the dry, sandy plains of some parts of the country, *coup de soleil*, or stroke of the sun, not unfrequently occurs by exposure to the intense heat of the solar rays. In general, the year is divided into three seasons, the rainy, cold, and hot ; the rainy extends from June to October ; the cold, from November to February ; and the hot, from March to May. The healthy season may be said to be from November to the setting in of the rains ; and the unhealthy season, during the period of the rains, and a short time after their termination. The northeast monsoon prevails during one half of the year, and the southwest during the other half. The monsoons are generally ushered in by furious storms, which deluge the country with rains, blow down the trees, and destroy the crops and houses of the inhabitants. In the southern part of Hindostan, the mountains running from north to south, render it winter on one side, while it is summer on the other. About the end of June, a southwest wind begins to blow from the sea, on the coast of Malabar, which, with continual rain, lasts 4 months, during which time all is serene upon the coast of Coromandel. Near the end of October, the rainy season and the change of the monsoons begin on the latter coast ; and, as it is destitute of secure harbors, ships are then obliged to leave it. The air is naturally hot in this division of India ; but it is



Setting in of Monsoons.

refreshed by breezes, the wind altering every 12 hours ; that is, from midnight to noon it blows off the land, when it is intolerably hot ; and during the other 12 hours, from the sea, which proves a great refreshment to the inhabitants of the coast.

6. *Soil.* The soil of this country is in many parts so excellent as to consist of black, vegetable mould to the depth of 6 feet. In Bengal, the Ganges annually overflows the country to the extent of more than 100 miles in width, which inundation greatly fertilizes the land, and the periodical rains and intense heat produce an extraordinary luxuriance of vegetation.



Banyan Trees.

7. *Natural Productions.* Large forests are found in various parts of this extensive country, and on the coast of Malabar, they consist of trees of a prodigious size. The teak tree (*Tectoria grandis*) affords a strong and durable timber, which is well calculated for ship-building, as teak-ships that have been in service for 30 years are not uncommon in the Indian seas, while a European built ship is ruined there in 5 years. The cocoa tree (*Cocos nucifera*) is remarkable for its extensive utility ; of the body or trunk, the natives make boats, and frames and rafters for their houses ; they thatch their houses with the leaves, and, by splitting them lengthwise, make

mats and baskets. The nut affords food, drink, and a valuable oil. From the branches,

when cut, exudes a liquor called toddy, from which, when fermented, is distilled an excellent rack. In fact, the Hindoos celebrate its 365 uses. Superior to this in the magnitude of its leaves, one of which will sometimes shade 12 men, is the Palmyra palm (*Borassias flabelliformis*), which sometimes reaches the height of 100 feet. Another species of palm (*Sagus farinifera*), yields the Sago, much used for puddings. The betel (*Arecha catechu*) is cultivated all over India for its fruit, the well known betel-nut. The Indian fig (*Ficus religiosa*), likewise called the banyan and the wonder-tree, is sometimes of an amazing size, as it is continually increasing; every branch proceeding from the trunk throws out long fibres, which take root in the earth, and shoot out new branches; these again throw out fibres that take root, and continue to increase as long as they find soil to nourish them. Of fruit-bearing trees the number is very great, and the fruit delicious, especially pomegranates, oranges, lemons, citrons, dates, almonds, mangoes, pines, melons; and, in the northern parts, pears and apples. In some parts, large tracts are covered with a dense mass of foliage and vegetation, crowded and twined together in such a manner as to be almost impenetrable. This forms what is called a *jungle*, composed of huge trees, prickly shrubs, and canes or bamboos, which in a few months run up to the height of 100 feet. Not less gigantic as a grass, than the banyan as a tree, is the bamboo (*Arundo bambus*), whose light and jointed stems often exceed 100 feet in height. The wood is extremely durable, and is used for various purposes. The cotton-tree (*Gossypium herbaceum*), sugar-cane (*Saccharinum officinarum*), and indigo plant (*Indigofera tinctoria*), are natives of India, and are extensively cultivated. Cajeput oil is the produce of an East India shrub (*Melaleuca leucadendron*), and caoutchouc, or Indian rubber, is the inspissated juice, not only of several species of fig, but also of the gum elastic vine (*Urceola elastica*). Ginseng (*Panax ginseng*), which is highly prized in China, belongs to the same genus with the wild ginseng of this country, which is also exported to China. Sandal wood (*Santalum album*), is a well known fragrant wood, much used for ornamental and religious purposes by the Hindoos. The true spikenard, or Indian nard (*Valeriana jatamansi*), has been employed as a perfume from the remotest antiquity.

7. *Animals.* Of the wild animals of Hindostan, the tiger, for his size and strength, may claim the first place; the royal tiger (as he is called) of Bengal grows, it is said, to the height of 4 or 5 feet, with a proportional length, and has such strength, that he can carry off a bullock or a buffalo with ease. Elephants are here very numerous and large. Here are also rhino-



Tiger attacking an Elephant.



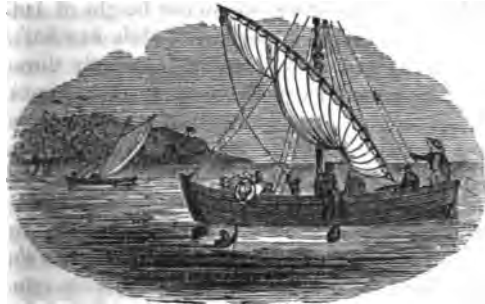
Antelope and Leopard.

ceroses, wild-boars, lions, bears, leopards, panthers, lyxes, hyænas, wolves, jackals, and foxes, with various species of apes and monkeys, and many beautiful antelopes, particularly that large kind called the nyl-ghau. Wild buffaloes, which are very fierce, and have horns of extraordinary length, and the yak or grunting ox, are also numerous.

8. *Minerals.* Iron, copper, and lead are abundant in various regions, but the mines are little wrought. The soil in many places is impregnated with saltpetre and soda, which is deposited upon the surface in moist weather in great quantities. Borax or tincal is obtained by evaporation from many saline lakes. Diamonds are obtained by washings in several localities upon the Krishna, and the Godavery, and in Bundelcund; there are no mines in Golconda, but the diamonds are cut in the city of that name, which is a great mart for this gem, and this has led to the mistaken notion, that the diamond districts were in its vicinity. Raolconda, in Visiapour,

and Gandicotta, are famed for their mines, as is Color, in Hydrabad. The diamond is generally found in the narrow crevices of the rocks, loose, and never adherent to the strong stratum. The miners, with long iron rods, which have hooks at the ends, pick out the contents of the fissures, and wash them in tubs in order to discover the diamonds. In Color they dig in a large plain to the depth of 10 or 14 feet; 40,000 persons are employed, the men to dig, and the women and children to carry the earth to the places in which it is to be deposited before the search is made. Diamonds are also found in the gravel or sand of rivers, washed out of their beds, and carried down with the stream. The river Gonel, near Sumbulpour, is the most noted for them.

9. *Islands.* Ceylon lies near the southern extremity of Hindostan. It is 300 miles in length, and from 50 to 100 in breadth. The coast is low and flat, and encircled with a wide border of cocoa trees, surrounded by rocks and shoals. The interior is filled with mountains, which rise in successive ranges from the coast; many of them are verdant and beautiful; others, peaked and rocky; the highest is called Adam's Peak. A chain of shoals and rocks, called



Pearl Divers of Ceylon.

Adam's bridge, connects the island with the continent, so that the channel between them is impassable for ships. Ceylon produces a great variety of fruits, and the finest cinnamon in the world. The minerals are tin, lead, iron, and quicksilver. Precious stones are abundant, including the ruby, topaz, amethyst, and diamond, though the last are not of fine quality. An extensive pearl-fishery is carried on in the Straits of Manaar, chiefly by boats from the mainland of India. *Columbo* is the chief town, and has considerable commerce, with a population of 50,000. *Trincomalee* derives importance from the excellence of its harbor, in

which the English have a dock-yard. The natives are divided into the Cingalese, who inhabit the maritime region, and the Candians, who live in the interior. The island belongs to the English crown.

The *Laccadives* are a group of shoals and islets to the west of the Deccan, they are governed by a prince, dependent upon the English. The *Maldives* also consist of a great number of banks or holms, among which there are 40 or 50 inhabited islets. The sovereign, who bears the title of sultan, resides in the largest, which is about 3 miles in circumference.

10. *Divisions.* This country is politically divided into British India, French India, Portuguese India, native kingdoms, dependent on, or in alliance with the British, of which the principal are Sindia and Nepal, and the kingdom of the Maldives. The following table gives the general view of these divisions.

Independent States	Square Miles	Population.
Sindia	40,000	4,000,000
Nepaul	53,000	2,000,000
		6,000,000
British Presidencies	600,000	90,000,000
British Vassal States	525,000	40,000,000
Ceylon (to British crown)	25,000	1,000,000
		131,000,000

11. *British India.* The English East India company are masters of nearly all India, which they have conquered from the native princes. Their territories cover an area of 1,200,000 square miles, and contain a population of 130,000,000 souls. They are composed of two distinct parts; the country immediately and entirely governed by the company's servants, divided into the three presidencies of Bengal, Madras, and Bombay, having an area of 600,000 square miles, and 90,000,000 inhabitants; and the territory of the allied States, which are garrisoned by British troops and are really mere vassals of the company, though nominally governed by their own princes; the vassal or allied States are, Hyderabad, Nagpore, Oude, Satarah, Mysore, Guzerat, Rajpootana, Travancore, Cochin, and numerous other petty States.

Territories and Population of the British East India Company.

	Square Miles.	Population.
Presidency of Bengal	360,400	70,000,000
“ Madras	142,000	13,500,000
“ Bombay	68,000	6,500,000
Vassal State of the Nizam (Hyderabad)	98,000	10,000,000
“ King of Oude	20,000	3,000,000
“ Rajah of Nagpore	70,000	3,000,000
“ Mysore	27,600	3,000,000
“ Satarah	14,000	1,500,000
“ Gwicksar (Guserat)	18,000	2,000,000
“ Travancore and Cochin	8,000	1,000,000
Rajpootana and smaller States	283,000	16,500,000

Calcutta, the capital of Bengal, stands upon the Hoogly, in a marshy and unhealthy spot. It consists of two parts; the one inhabited by the natives, dirty and meanly built, called the Black Town, is a mere assemblage of thatched mud huts; the other, occupied by the Europeans, called the Chouringee, is described as resembling a village of palaces. *Calcutta* is the residence of the governor-general of India, and is one of the most wealthy, populous, and commercial cities of Asia, having about 600,000 inhabitants. *Fort William*, at *Calcutta*, is remarkable for the vast extent and great strength of its works. *Serampore*, in the vicinity, belongs to Denmark; it is a small town with 13,000 inhabitants, and is chiefly remarkable, as being the principal station of the Baptist missionaries in India; they have here a college for the instruction of native youth, and a celebrated printing establishment, from which have issued translations of the Bible into eight Indian languages, and of the New Testament into 24 Indian dialects. *Dacca*, upon the branch of the Ganges called the Old Ganges, was once the capital of Bengal, and is famous for the beautiful products of its looms, particularly its fine muslins. It has 200,000 inhabitants. *Mooshedabad*, upon the Ganges, with 130,000 inhabitants, and *Patna*, upon the same river, with 300,000, are, like most of the Asiatic cities, meanly built, but their manufactures are important.

Benares, higher up the Ganges, is the largest city of India, and has long been celebrated as the chief seat of Braminical learning; it is also venerated by the Hindoos as a holy place, and crowds of pilgrims annually visit it from all parts of the country. The houses are high, and are ornamented with verandahs and galleries, and covered with painted tiles of brilliant colors. The temples are generally small, but they are numerous, and covered with sculptures of high finish. Sacred bulls, consecrated to Siva, the Destroyer, the third member of the Hindoo trinity, are seen strolling about the streets, and groups of monkeys, sacred to Hanuman, or the Man Monkey, are climbing over the temples, or pillaging the shops, without check, of fruits and sweetmeats. *Benares* is also a great manufacturing city, and a great mart for the shawls of the north, the diamonds of the south, the muslins of *Dacca*, and the English manufactures, brought from *Calcutta*. *Allahabad*, at the confluence of the Jumna with the Ganges, is regarded by the Hindoos as the queen of holy cities, and is annually visited by thousands of pilgrims; the *prayagas*, or points where the tributaries of the Ganges join the main stream, being regarded as places of peculiar sanctity, ablution in which atones even for deadly sins. It is now much reduced, having but 20,000 inhabitants, but its citadel, which has been rendered impregnable by the English, renders it the principal stronghold of British India.

Agra, on the Jumna, once the splendid residence of the Great Mogul Akbar, is now principally in ruins. It still contains 60,000 inhabitants, and has of late begun to recover its commerce. The most remarkable building is the mausoleum of *Tajmahal*, erected by her husband; it is built of marble, and forms a square of 570 feet, surmounted by a marble dome 70 feet high, and 4 minarets of great elegance; the walls are adorned with exquisite mosaics, made of precious stones, and a beautiful and spacious garden surrounds the building. The mausoleum of Akbar, at *Sicandara*, 6 miles distant, is little inferior to this.

Delhi, also upon the Jumna, and at one time the residence of the brilliant court of the Grand Mogul, is now much reduced, but still contains 300,000 inhabitants. The imperial palace is one of the most magnificent residences in the world; it is surrounded by a high and strong wall of about a mile in circuit. The principal mosque, considered the most splendid Mahometan temple in India, rises upon a vast platform surrounded with a beautiful colonnade, and is 260 feet long; its rich decorations, its domes, and lofty minarets, 130 feet in height, are much ad-

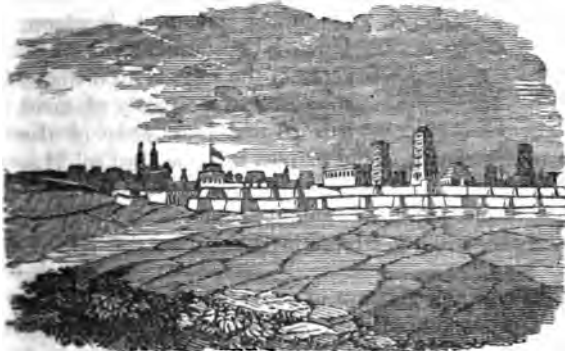
nired. There is here a canal 120 miles in length, which serves to bring water from the mountains to Delhi, for purposes of irrigation. *Hurdwar* is famous for its situation at the confluence of the two head branches of the Ganges, which attracts an immense number of pilgrims, estimated at some seasons to exceed 1,000,000.

Juggernaut, in Orissa, is renowned throughout all India for its temple, esteemed by the natives the most sacred place of pilgrimage. It consists of a number of buildings, surrounded by a high wall, within which is a second enclosure, containing the sanctuary of Juggernaut, the lord of the universe, a pyramidal building 200 feet high. At great festivals, the Juggernaut is placed in an enormous car, and dragged to his country residence, whence, after spending 8 days, he is conducted back to the temple. It is at this time, that the wretched devotees throw themselves under the wheels of the car, esteeming it a passport to happiness in the next world to be crushed under its weight.

Madras, the capital of the presidency of the same name, is a large, populous, and well-built city, with 462,000 inhabitants. It presents a singular mixture of pagodas, minarets, mosques, and gardens, and consists of 2 distinct quarters, the Black and the White Town. Its cotton manufactures are extensive, and its commerce considerable. In the vicinity are the celebrated ruins of *Mahabalipuram*, consisting of immense excavations, groups of innumerable figures of men and animals; and beneath the waters of the sea, which has swallowed up a part of its site, some buildings are still visible.

Trichinopoly, one of the chief military stations of the British, contains 80,000 inhabitants, and *Tanjore*, in the neighborhood, once the capital of a kingdom, has about 30,000 inhabitants. On the island of *Seringham*, in the Cavery opposite Trichinopoly, is an immense pagoda, composed of 7 enclosures, the walls of which are 25 feet high, each containing 4 large gates, surmounted by towers; the exterior wall is 4 miles in circuit; the towers, gates, and interior of the buildings are covered with sculpture, and the canopy of the interior temple is of massive gold, set with precious stones. *Masulipatam*, on the Krishna, with 75,000 inhabitants, has the best harbor on the Coromandel coast, and its manufactures and commerce are extensive.

Seringapatam, on the Cavery, in the kingdom of Mysore, belongs to the English; it was once the residence of the celebrated Tippoo Saib, and the capital of a powerful kingdom, but it is now much reduced, and its 150,000 inhabitants have dwindled down to 10,000.



Seringapatam.

Bombay, the capital of a presidency, is built upon a small island, defended by a vast citadel, and is the chief naval station of the English in India. Its harbor is the best on the western coast, and *Bombay* is the great mart of the Indian trade with Persia, Arabia, Abyssinia, and the Indian Archipelago. The Parsees, or Guebres, and the Armenians are the principal merchants. Population, 200,000.

At *Elphanta* in the neighborhood, is a temple of great size, hewn in the solid rock; it has 3 entrances between 4 rows of massive columns, and contains a colossal statue of Siva. At *Kenneri*, on another island, is a cave-temple still more lofty, and a whole hill is there cut out into tanks, stairs, &c. *Poonah* is a large and handsome town, with spacious streets; population, 115,000. *Surat*, on the Tapti, is one of the chief commercial towns of India. It has a good harbor, but the streets are narrow and crooked, and the houses very high, with the upper stories projecting. The Guebres are numerous and wealthy; Indian charity has here erected a vast hospital for animals, comprising monkeys, tortoises, fleas, and other vermin. Population, 160,000.

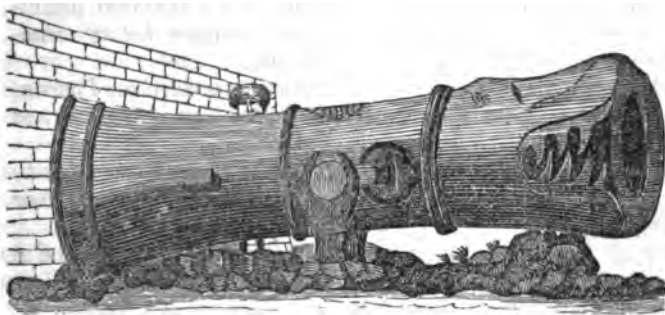
Ahmedabad, formerly one of the largest, richest, and most splendid cities of Asia, still contains a population of 100,000 souls, and several remarkable edifices, which attest its ancient magnificence.

The ruins of *Bisnagar*, in the province of Bejapor, exceed in extent and gigantic proportions anything of the sort in India. Its enormous walls are constructed of colossal blocks of stone, and its deserted streets, one of which, exceeding a mile in length, and 100 feet in breadth,

*Bisnagar.*

kingdom of the Deccan. It has a population of 200,000 souls. *Golconda*, in its neighborhood, is a celebrated mart for diamonds. *Aurungabad*, in the same State, has 60,000 inhabitants. *Ellora*, in its vicinity, is famous for its magnificent cave-temples of enormous size and exquisite finish.

Bejapoor, or *Viziapoor*, in the south, was once a very populous city, and capital of the



diameter. It was fired once during the siege of the city, and the natives imagine the ball to be flying yet.

Nagpore is the capital of the Mahratta kingdom of the same name; population, 125,000.

Baroda, the capital of the States of Guickwar, another Mahratta prince, has 100,000 inhabitants.

In the province of Ajmere, called also Rajpootana, on account of its containing several Rajpoot principalities, the most important town is *Jypore*, one of the best built cities in India, with 60,000 inhabitants. The royal palace is built to represent a peacock's tail, the colored glass of the windows representing the rich spots of the plumes. *Oodipoor* or *Odeypoor* has a splendid palace on the border of a beautiful lake, and is increasing in population and importance. It is a place of great natural strength, being enclosed within an amphitheatre of hills, which can be entered only by one deep and dangerous defile.

12. *Kingdom of Sindia*. This kingdom, which is entirely surrounded by the British territories, comprises parts of the old provinces of Agra, Candeish, and Malwah, and has an area of 40,000 square miles, with 4,000,000 inhabitants. *Gwalior*, the capital, is a flourishing and populous city, built in a vast plain, out of which suddenly rises a hill 340 feet high, containing the citadel. Population, 80,000. *Oogein* is a town with 100,000 inhabitants, celebrated among the Hindoos for its schools and its observatory.

13. *Confederation of the Seiks*, or kingdom of Lahore, comprising Lahore, Cashmere, Multan, and part of the kingdom of Cabul, had an area of 175,000 square miles, and 8,000,000 inhabitants; but has ceased, however, to be an independent State, having been lately annexed to the British dominions. *Lahore*, the capital, is a commercial and manufacturing town, standing in the midst of a fertile and well cultivated country, with 100,000 inhabitants. *Amreetsir*, an important commercial mart, with about 50,000 inhabitants, contains the celebrated well of im-

is lined through its whole length by colonnades, are paved with huge masses of granite. In the 14th and 15th centuries, *Bisnagar* was the capital of a powerful empire. The city appears to have been built entirely of granite, and some of the stones are 50 feet in length. One of its public thoroughfares passes under a natural arch or gateway of rock.

In the kingdom of Oude is *Lucknow*, the capital, and the residence of the most brilliant native court in India. It contains many magnificent buildings, and 300,000 inhabitants.

Hyderabad is the residence of the Nizam, or sovereign prince of the State, called the

kingdom of the Deccan, and still exhibits some of the noblest remains of Mahometan art in the country; it has been called the "Palmyra of the Deccan." The mausoleum of the Sultan Mahmoud, and the Joomah Musjeed, or Friday Mosque, are most splendid buildings. Upon a bastion near one of the gates of the city, is a great gun, supposed to be partly of gold; it is 15 feet long, and 5 feet in

mortality, which the Hindoos imagine has the power to wash away all sin. In the sacred basin is a temple served by 500 priests. *Cashmere*, capital of the province of the same name, is a large manufacturing city, but badly built, and much reduced from its former splendor. It is celebrated for the beauty of its situation and its delightful climate, and it was the summer residence of the former sovereigns of India. Its shawls are known all over the world. Population, 100,000.

14. *Kingdom of Nepaul*. This State, which lies between British India and the Chinese empire, has an area of 53,000 square miles, and 2,500,000 inhabitants. *Catmandoo*, the capital, has a population of about 20,000.

15. *Bootan*. Bootan, or the country of the Debraja, is a lofty valley, lying between the loftiest steepes of the Himala on the north, and a lower, but still elevated mountain range on the south, and extending from Nepaul on the west, to Assam on the east. Although it properly belongs, therefore, to Hindostan, in a physical point of view, yet it is politically connected with China, being one of the vassal or protected States of that vast empire. Even the deepest valleys are here from 3,000 to 6,000 feet above the sea, and the climate partakes of both extremes of heat and cold. The inhabitants are called *Booteas*, and are either a distinct race, or related to the Mongols. They are Buddhists, and they consider their spiritual head, or Dherma Raja, as the incarnation of the Deity. The number of gylongs or priests is great. The temporal sovereign is called Debraja; there are no towns here, but the summer residence of the prince is *Tassirsudon*, and his winter residence, *Panuka*. Both polygamy and polyandry are said to be common in Bootan.

16. *The Principality of Sindé*, lying upon both sides of the Indus, has 1,000,000 inhabitants upon a surface of 52,000 square miles. The capital, *Hyderabad*, is noted for its manufacture of arms. Sindé has lately been taken possession of by the English.

17. *Portuguese India*. The Portuguese possess only a small territory around Goa, Daman, and Diu, on the eastern coast. The town of *Goa*, on a small island, has a good harbor, and carries on an active trade; its population is about 15,000.

18. *French India*. France possesses several detached fragments of territory round Pondicherry, Carical, Yanaon, Chandernagor, and Mahe. *Pondicherry*, the residence of the governor of the French possessions in India, has 40,000 inhabitants.

19. *Danish India* consists merely of *Serampore*, in Bengal, and *Tranquebar*, on the Cavery, in Tanjore, with 12,000 inhabitants.

20. *Agriculture*. The implements of husbandry are exceedingly imperfect, and the agricultural part of the population are extremely poor. The only artificial means of fertility employed to much extent is irrigation. Rice, which in Hindostan is the staff of life; cotton of an inferior quality, the material of clothing; opium, which is extensively used, particularly in the East, as a luxury; silk, though inferior in staple to the European; sugar, but of a sort inferior to that of the West Indies; indigo, now the most important commercial product of India, and pepper, are the principal articles of agricultural industry.*

21. *Manufactures*. India long supplied the West with manufactured goods; but, in most articles, European skill and machinery have in recent times supplanted the productions of India; yet the muslins of Dacca, in fineness, and the calicoes and other piece-goods of Coromandel, in brilliancy and durability of color, have never been surpassed. The Indian manufactures are produced by solitary individuals, working entirely by hand, with a loom of the rudest construction. The silk manufacture has been carried on from remote antiquity; cotton goods have long been made in great quantities, but at present British and even American cottons are import-

* The following statements are from an English pamphlet, published in 1839:

"The fact of frequent and inconceivably dreadful famines throughout the British territories of India, is one that has been little known, and still less inquired into, by the people of this country. Few, comparatively (for example), are aware of the extent of the mortality amongst our Indian fellow-subjects in the upper provinces of Bengal, during the past year. In a few short months, more than half a million perished by famine, and the diseases produced by that calamity. At this moment, other parts of India are subjected to a similar visitation. Yet, down to the present time, there has been no public investigation into the causes of these frightful events. Their occurrence

is here scarcely known. They have hitherto awakened, in this country, no effort, no sympathy; led to no relief. How far they are avoidable, how far they can be averted, or their consequences mitigated, when they arrive, are questions yet to be asked. And shall not these questions be asked, and a true and explicit answer be demanded? Since 1770 (when a famine in Bengal swept off, it has been computed, three millions), there has been a succession of famines, which have destroyed the lives of immense multitudes of human beings; these human beings have died in a country once deemed the wealthiest in the world, and upon one of the richest and most productive soils upon the face of the globe."

ed into Hindostan. The Hindoos excel in working in gold and silver, and in cutting, polishing, and setting precious stones.

22. *Commerce.* The Banians or Hindoo merchants, Armenians, and Parsees carry on the principal part of the internal trade; the maritime commerce is principally carried on by the English, Americans, &c. The English East India Company prosecutes an extensive commerce between India and China, and the Indian Islands; tea is imported from China, to which opium is sent; spices from the Moluccas; coffee from Arabia, &c. Until 1813, the East India Company had the monopoly of the British trade with India; but the intercourse between Great Britain and Hindostan was then made free to all British subjects, and in 1833, the other commercial privileges of the Company were abolished, and the functions of the Company have become merely administrative. The commerce of India has always possessed an illusive splendor in the eyes of Europeans, derived from the brilliant character of some of its articles. But it by no means ever possessed the magnitude or importance attached to it by some, and its value has somewhat declined in modern times. The annual value of the exports of British India is about 55,000,000 dollars; of imports, 40,000,000.

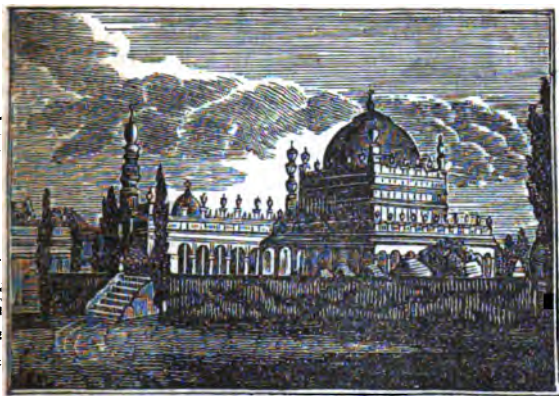
23. *Religion.* The Hindoos are chiefly professors of Bramanism, but Buddhism is the religion of the Cingalese, the Nepaulese, and some others. The Jains are a Buddhist sect, who have incorporated some notions derived from Bramanism with their faith. The Seiks profess the religion of Nanek, a mixture of Mahometanism with Bramanism. The Mahometan religion is professed by that race of conquerors who established the empire of the great Mogul, and who were, in fact, a mixture of Persian and Turkish tribes, and by some Hindoo converts. The Parsees or Guebres are numerous in Guzerat, and there are some Jews and Christians.

24. *Government.* The native princes, who reign over a considerable part of the country, possess in general absolute power. The East India Company of merchants rules over the immense territorial possessions belonging to it, without any other control than the responsibility of its agents to the government of Great Britain. The government of the Company is vested in a Court of Directors, under the supervision of the Board of Control, which consists of some of the chief ministers of the crown. The president of Bengal is styled Governor-general of India, and, with the other presidents, is appointed by the Directors. The laws and usages of the Hindoos are generally respected within its possessions. The vassal princes or allies have little more than the pomp of power, the real authority being, for the most part, in the hands of the Company's residents or agents, stationed at the allied courts. The Company maintains a large standing force of 256,000 men, consisting chiefly of native soldiers, called sepoy, but officered by Europeans; only the inferior ranks being accessible to the natives. Garrisons are stationed in the allied territories, the troops composing which are paid by the respective princes. The English provinces are much more peaceful and prosperous than the States which still retain their own princes; and the best policy seems now to be, to consolidate the whole of India under one uniform government.

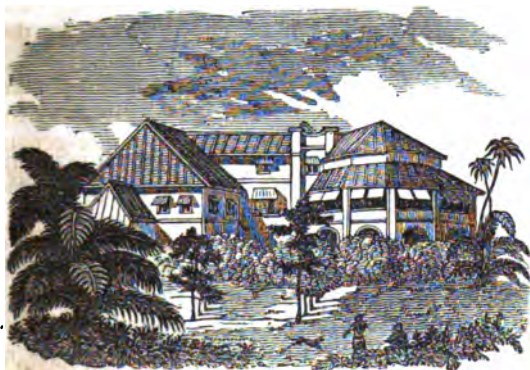
25. *Inhabitants.* The inhabitants of India are Hindoos, who compose the mass of the population; descendants of Turkish and Persian tribes, who at different periods conquered the country; Europeans, of whom the number is few, not probably amounting to 100,000, including the civil and military servants of the Company, and the king's troops stationed in the country; the Anglo-Indians, or half castes, the descendants of English by Hindoo women, of whom the number does not exceed 50,000; and a number of nations, such as the Garrows, Gonds, Bheels, Jits, &c., who do not appear to belong to either of these races. The Hindoos are dark, well-made, slender, and graceful, and their expression is soft and retiring; less impassioned than that of the Persians or Arabs. The forehead is small, the face oval, and the mouth and nose rather of the European cast. The ears are larger and more prominent than in Europeans; the females of the higher castes, who do not labor, are exceedingly delicate, graceful, and sylph-like. Their eyes are dark and languishing, and their skins polished and soft. The men have two fashions of dress, one very ancient, the other partly adopted from the Mahometans. The ancient dress is in three pieces of cotton cloth, one bound round the waist and falling to the knees, another wrapped round the body, and the third around the head. This may be very gracefully disposed. The other dress is cotton drawers, a long robe tied with a scarf, and a turban. This is the regular dress of the Hindoos; but the poorer class have often but a piece of cloth wrapped around the loins. The head is usually shaved, except a lock behind. A small pair of mustachios are worn. The dress of females is very elegant. The close part is a jacket with half sleeves, which shows the shape. The remainder of the dress is

the *shalice*, a large piece of silk or cotton wrapped round the middle, falling gracefully below the ankle of one leg, while it displays a part of the other. The upper end crosses the breast, and is thrown forward again, over the head, or shoulder. The dark eyelashes are prolonged by lines of black drawn from the corners of the eyes. The hands and feet are always adorned with rings and jewels.

The manner of building is simple, and many dwellings are of frame work of split bamboo, covered with mats. Some houses have walls of mud, hardened to the consistency of bricks. The habitations of the opulent have two stories. In towns the architecture has little resemblance to the Moorish. The Gomezé or Mausoleum of Sultan Mahmoud, at Bejapoor, is a gorgeous specimen of oriental architecture, built of brick and chunām. It is a quadrangle of 150 feet square, with a dome 150 feet in height. Its style is that of grandeur and simplicity. The Mausoleum of Hyder Ali, at Seringapatam, incloses the remains of Hyder, his queen, and his son Tippoo Saib. The temples and mosques are of no very elegant order, but heavy and imposing. The English residents often adopt a mixed style of building, combining European convenience with adaptation to an Eastern climate.



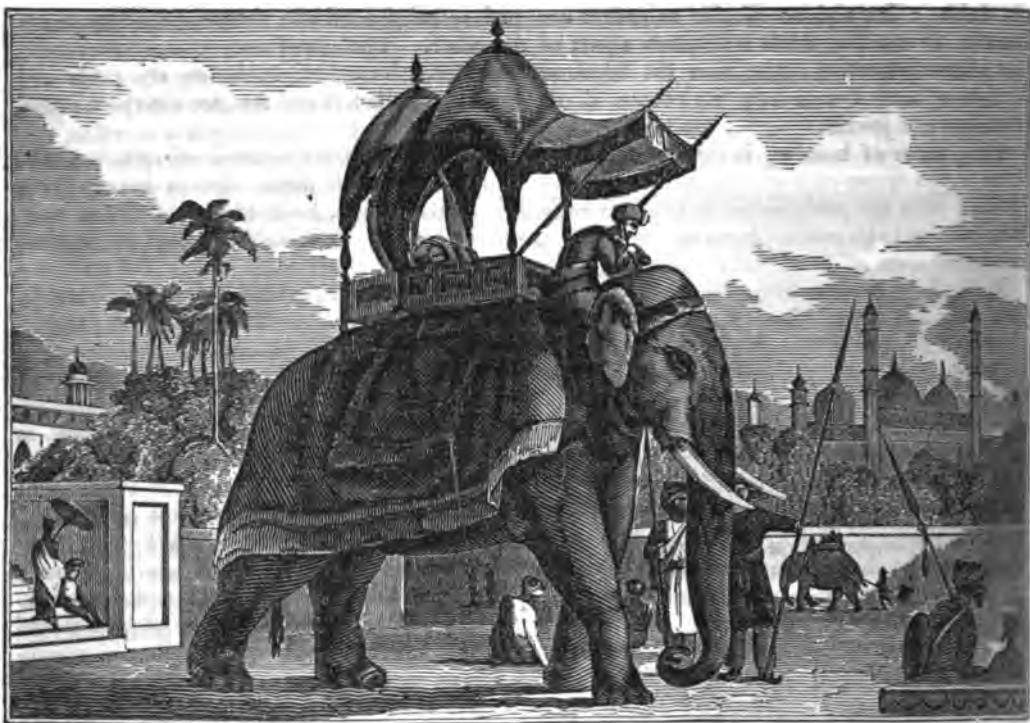
Mausoleum of Hyder Ali.



An Englishman's House in India.

The manner of living is as simple as that of building. Only the impure castes eat animal food. The only substitute is fish, and some clarified butter. In the south the low castes eat fowls, and the out-castes, anything. Rice and vetches, are general articles of food. Only the lowest castes take intoxicating liquors or drugs. *Bang*, made from hemp, and *toddy*, of the palm, are the chief intoxicating substances. Tobacco and betel are generally used.

The diseases most fatal to Europeans are fevers, and few such retain for years a good constitution in India. Many of the diseases of Europe are common, and in the cholera Europe has received the destroyer from Asia. The first outbreak of this frightful disease was in India, and its ravages were rendered more appalling by the mystery of its origin and the superstition of the natives. A spasmodic cholera has always existed in India, but it was not until 1817, that it assumed the epidemic character. In the beginning of August it broke out with unprecedented malignity at Jessore, 100 miles from Calcutta. From that time to the present it has gradually spread over the most populous parts of Asia, and a considerable portion of Europe. It is computed, that it has destroyed not less than 50,000,000 of people. It prevails over every variety of climate, every natural barrier, or artificial defence. Its origin, nature, and cure are unknown. It proceeds capriciously though generally on the great roads or routes of communication, raging mostly where there are large bodies of people. In the spasms the pain is terrific. The striking characteristics are great debility, extinction of the circulation, and sudden cooling of the body. Having proceeded from India to the countries of southern Asia, it entered Europe by the way of Astracan, and followed the course of the Volga. It attacked the cities in Russia, Austria, Prussia, &c., and was next communicated to England, where its ravages were slight, while at Paris and its vicinity, they were beyond all parallel. It spread even to America, and was very fatal in Quebec and New York, chiefly among the immigrants, and the poor and destitute. The manner in which the disease is



Elephant-traveling in India.



Elephant-traveling.

communicated is not yet satisfactorily known. It has hitherto defied medicine and science.

A common mode of traveling, is in palanquins, a sort of litter, carried by means of poles on the shoulders of men. These vehicles are covered, and have curtains and cushions. The bearers are changed at convenient distances, on long journeys. They go from three to four miles an hour. The rich sometimes travel on elephants, with costly trappings.

The Hindoos are gentle, polished, and courteous in their manners; temperate, simple, frugal, industrious, lively, and intelligent. Yet the long oppression of foreign races, and the servile subordination of inferiors to their superiors often render them treacherous, selfish, and cruel. Women hold a very degraded station among them, not being allowed to open a book, or to enter a temple; they live generally a retired life in the interior of the houses.

One of the most striking features of the Hindoo social system is the division into *castes* or hereditary classes, of which there are four principal ones; the Brahmins or priests; the Shatryas or warriors; the Vaisyas or husbandmen, merchants (banians), and artisans; and the Sudras

invariable. But the number of mixed castes is very great, and it is by no means true, as is generally asserted, that the individuals of each caste are strictly limited to a particular occupation. Almost every occupation is, indeed, regularly the profession of a particular class, but with some exceptions it is also open to those of other castes. Thus there are three duties or privileges exclusively Braminical ; teaching the vedas or sacred books, officiating at a sacrifice, and receiving presents from a pure giver ; but a Bramin in distress may have recourse to employments of the lower castes for subsistence ; and so with the other castes, each in general being excluded from the professions belonging to superior castes, but being at liberty to follow those of the inferior ; the sudras, however, and the mixed classes or barren-sunker are permitted to exercise all sorts of handicraft, trade, and agriculture.

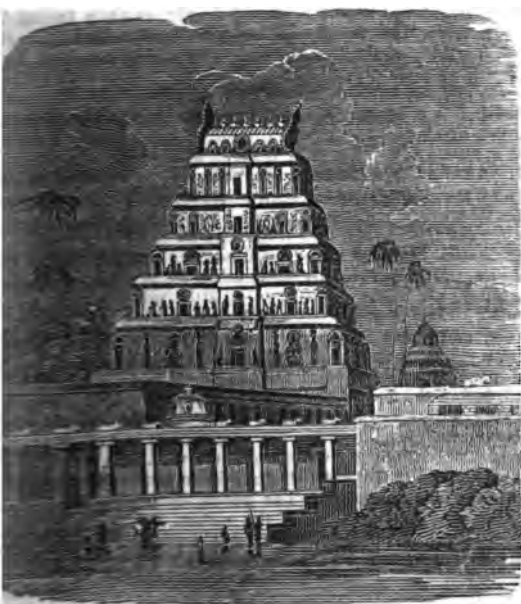
Beside these are the *outcastes*, or unhappy individuals who have, by misconduct, or even by the most trivial act of inadvertence, lost caste ; to swallow a morsel of beef, though involuntarily, to hold communication with persons of an inferior caste, &c., converts the most revered Bramin at once into a despised outcaste, who forfeits his patrimony, is excluded from the society of his family, and from all the courtesies and charities of life. There is a class of hereditary outcastes in India called *pariahs*, whose origin is unknown ; even their approach is considered pollution, and they are required to give notice of their presence by uttering certain cries, which may warn the pure of the danger.

The sacred books of the Hindoos, called the *Vedas*, constitute the holy word or *Shastra*, which was derived from Vishnu ; they are written in the Sanscrit or Holy language, long since a dead language, but probably spoken at a remote period, and are in the devanagari or sacred alphabet. According to the Braminical doctrines, the supreme mind or *Brahm*, acts in the three great operations of creating by *Brama*, of preserving by *Vishnu*, and of destroying by *Siva* ; these three powers or energies constitute the Braminical trinity or *trimurti*, and have interposed in various characters and under various names in the affairs of men. By the common people all these manifestations of the supreme mind are considered as so many divine beings or gods, but the philosophers consider them only as attributes or metamorphoses of *Brahm*. The ten avatars or descendants of *Vishnu*, upon earth, constitute one of the most fertile themes of Hindoo mythology ; under various forms, human, monstrous, or brutal, he has repeatedly appeared on earth, destroying giants, monsters, &c. The 10th avatar, when he will come to root out evil from the earth, is yet expected. The veneration of brute animals, particularly the cow, monkeys, &c., is derived from this doctrine of the divine incarnation in different forms.

Metempsychosis or the transmigration of souls is also a leading feature of the Braminical religion ; according to this belief, the soul of man after death passes into other bodies, human or brute ; and the nature of the change depends upon the moral character of the individual. The

good rise into higher states of existence, while the souls of the wicked animate the most vile and degraded animals. The rites of Braminism are chiefly of an irrational or of a revolting nature ; pilgrimages, penances, ablutions, honors paid to images or sacred animals, and ceremonies of the most indecent or cruel nature, make up its ritual. Pagodas are numerous.

There are many wandering fakeers, and many devotees live in solitude, who consider it meritorious to torture themselves. Some hold their hands in a perpendicular posture till they are withered, and others clench their hands together, till their nails grow into the flesh. Others are swung round with a hook passed under the muscles of the back, attached to a line which is made fast to a pivot on a post. The most grotesque as well as repulsive means of self-torturing are followed. The great rivers are favorite objects of Hindoo veneration, and the waters of the Ganges are used in the courts to swear the witnesses upon ; many seek a voluntary death in its sacred bosom, and the parent often devotes his child to an early doom in



Pagoda.

its waters. The *Suttee*, or burning of widows upon the funeral pile of their husbands,* and infanticide in various forms, have long been practised, but the authority of the British government has lately been employed in abolishing these hateful rites, as well as those celebrated in honor of Juggernaut.†

The ceremonies are so many, that the people have little time for amusements. None dance but the professional dancing girls, who are of a religious order. They are generally handsome, and dressed with elegance. The wrestlers are very adroit, and the jugglers are unequalled. The people have an adventurous mode of swinging. They are lashed at the end of a long horizontal bamboo, which revolves upon a perpendicular post, which is carried swiftly round by

* "After waiting a considerable time," says Hodges, "the wife appeared, attended by the Brahmins, and music, with some few relations. The procession was slow and solemn; the victim moved with a steady and firm step; and apparently with a perfect composure of countenance, approached close to the body of her husband, where for some time they halted. She then addressed those who were near her, with composure, and without the least trepidation of voice or change of countenance. She held in her left hand a cocoa-nut, in which was a red color mixed up, and dipping in it the fore-finger of her right hand, she marked those near her, to whom she wished to show the last act of attention. At this time I stood close to her; she observed me attentively, and with the color marked me on the forehead. She might be about 24 or 25 years of age, a time of life when the bloom of beauty has generally fled the cheek in India, but still she preserved a sufficient share to prove that she must have been handsome; her figure was small, but elegantly turned; and the form of her hands and arms was particularly beautiful. Her dress was a loose robe of white flowing drapery, that extended from her head to the feet. The place of sacrifice was higher up on the bank of the river, a hundred yards or more from the spot where we now stood. The pile was composed of dried branches, leaves, and rushes, with a deer on one side, and arched and covered on the top; by the side of the deer stood a man with a lighted brand. From the time the woman appeared, to the taking up of the body to convey it into the pile, might occupy a space of half an hour, which was employed in prayer with the Brahmins, in attention to those who stood near her, and conversation with her relations. When the body was taken up, she followed close to it, attended by the chief Brahmin, and when it was deposited on the pile, she bowed to all around her, and entered without speaking. The moment she entered, the door was closed; the fire was put to the combustibles, which instantly flamed, and immense quantities of dried wood and other matters were thrown upon it. This last part of the ceremony was accompanied with the shouts of the multitude, who now became numerous, and the whole seemed a mass of confused rejoicing."

† From a town called Buddruck, in the province of Orissa, Dr. Buchanan writes, under date of 30th May, 1806: "We know that we are approaching Juggernaut (and yet we are more than 50 miles from it) by the human bones which we have seen for some days strewed by the way. At 9 o'clock this morning, the temple of Juggernaut appeared in view, at a great distance. When the multitude first saw it, they gave a shout, and fell to the ground and worshipped. I have heard nothing to-day but shouts and acclamations, by the successive bodies of pilgrims. From the place where I now stand, I have a view of a host of people, like an army, encamped at the outer gate of the town of Juggernaut; where a guard of soldiers is posted, to prevent their entering the town, until they have paid the pilgrim's tax." This tax is a source of revenue to the East India Company, who probably make about £1,000 a year by it. It was originally imposed by the Mahrattas and Mahometans. On the 14th of June, Dr. Buchanan writes: "I have seen Juggernaut. The scene at Buddruck is but the vestibule to Juggernaut. No record of ancient or modern history can give, I think, an adequate idea of this valley of death; it may be truly compared with the Valley of Hinnom. The idol, called

Juggernaut, has been considered as the Moloch of the present age; and he is justly so named, for the sacrifices offered up to him, by self-devotement, are not less criminal, perhaps not less numerous, than those recorded of the Moloch of Canaan. This morning I viewed the temple; a stupendous fabric, and truly commensurate with the extensive sway of the 'horrid king.' As other temples are usually adorned with figures emblematical of their religion, so Juggernaut has representations, numerous and various, of that vice which constitutes the essence of his worship. The walls and gates are covered with indecent emblems, in massive and durable sculpture. I have also visited the sand-plains by the sea, in some places whitened with the bones of the pilgrims; and another place a little way out of the town, called by the English, the Golgotha, where the dead bodies are usually cast forth, and where dogs and vultures are ever seen. The vultures generally find out the prey first, and begin with the intestines; for the flesh of the body is too firm for their beaks, immediately after death. But the dogs soon receive notice of the circumstance, generally from seeing the hurries, or corpse-carriers, returning from the place. On the approach of the dogs, the vultures retire a few yards, and wait till the body be sufficiently torn for easy deglutition. The vultures and dogs often feed together; and sometimes begin their attack before the pilgrim be quite dead. There are 4 animals which are sometimes seen about a carcass; the dog, the jackal, the vulture, and the *kurgela* or adjutant, called by Penant the gigantic crane." On the 18th of the same month, Dr. Buchanan writes: "I have returned home from witnessing a scene which I shall never forget. At 12 o'clock of this day, being the great day of the feast, the Moloch of Hindostan was brought out of his temple, amidst the acclamations of hundreds of thousands of his worshippers. The throne of the idol was placed on a stupendous car or tower about 60 feet in height, resting on wheels which indented the ground deeply, as they turned slowly under the ponderous machine. Attached to it were 6 cables, of the size and length of a ship's cable, by which the people drew it along. Upon the tower were the priests and satellites of the idol, surrounding his throne. The idol is a block of wood, having a frightful visage painted black, with a distended mouth of a bloody color. His arms are of gold, and he is dressed in gorgeous apparel. After a few minutes, it stopped; and now the worship of the god began. A high priest mounted the car in front of the idol, and pronounced his obscene stanzas in the ears of the people, who responded at intervals in the same strain. 'These songs,' said he, 'are the delight of the god. His car can only move when he is pleased with the song.' The car moved on a little way, and then stopped. The characteristics of Moloch's worship are obscenity and blood. After the tower had proceeded some way, a pilgrim announced that he was ready to offer himself a sacrifice to the idol. He laid himself down in the road, before the tower as it was moving along, lying on his face, with his arms stretched forwards. The multitude passed round him, leaving the space clear, and he was crushed to death by the wheels of the tower. A shout of joy was raised to the god. He is said to smile when the libation of blood is made. The people threw cowrie, or small money, on the body of the victim, in approbation of the deed. He was left to view a considerable time; and was then carried by the hurries to the Golgotha."

means of a rope below. The game of chess is common, as in other parts of Asia. The English often engage in the chase of the ferocious, as well as of the timid animals.

Rice is the principal article of food, but nothing can be more mistaken than the supposed prohibition of animal food. Fish is considered one of the purest and most lawful kinds of food, and many Bramins eat both fish and kid; the Rajpoots beside these, eat mutton, venison, or goat's flesh; some castes may eat anything but fowls, beef, or pork, while pork is a favorite diet with others, and beef only is prohibited. Intoxicating liquors are forbidden by their religion; but this is disregarded by many both of high and low caste, and intoxication is not rare even among the Bramins.

In consequence of a belief in transmigrations, the Hindoos are scrupulous about taking the life of many animals. Some are so careful in this point, that they brush the ground lest they tread upon an insect. At Surat there is a Banian hospital, where wounded or helpless animals are received, and treated with care. The wards are filled with camels, goats, horses, birds, and even rats, mice, &c. Beggars are sometimes hired to expose their flesh to the bites of insects, from a desire to serve even these. Dying people are removed, when possible, to the Ganges, and the funeral obsequies are performed 96 times in the year. The Hindoos made early, considerable progress in astronomy, &c., and they have much literature, chiefly epic, or dramatic poetry. At Calcutta, the government maintains a Sanscrit college, in which there are funds for the support of 100 indigent students. There is also a Mahometan college for instruction in the Persian and Arabic languages, and in the Mahometan law. There are also important colleges for Hindoo literature at Benares, and Agra, and the Bramins have several ancient seminaries.

The Europeans in India frequently pass a dissipated life; and adopt readily the oriental habit of profusion and show. One of these, even in a common situation, has many domestics: not one of which will perform any service out of his own grade, or division of service. The servants of a household are therefore very numerous, and the followers of a camp are treble in number to the soldiers.

17. *History.* The ancient history of this country reaches to a very remote antiquity. Sesostris, Darius, Alexander, and others, invaded the country at different periods anterior to the Christian era. Mahomet of Ghizni established here the Mahometan power in the 11th century. The Venetians were the first Europeans who traveled to India, and the Portuguese, who discovered the passage round the Cape of Good Hope, were the first that established themselves in the country. The Dutch, English, and French followed. Since the middle of the last century the dominion of the English has, by a system of usurpation, intrigue, and bloodshed, been extended over the greater part of the country.*

CHAPTER LXIX. THIBET.

1. *Boundaries and Extent.* Thibet is bounded north by Tartary, east by China, south by the Birman Empire and Hindostan, and southwest by Hindostan. It is in fact only a long, high valley between the lofty walls of the Kwenlun and the Himala mountains. It contains about 400,000 square miles.

2. *Rivers, &c.* Thibet, at first view, appears to be one of the least favored countries under heaven, and in a great measure incapable of culture. It exhibits only low hills with scarce any visible vegetation, or extensive arid plains, both of the most stern and stubborn aspect, promising as little as they produce. The principal river of Thibet is the *Sanpoo*, which has an easterly course, and was long thought to be the head of Burrampooter; this opinion has recently been doubted; though it is hard to imagine where the Sanpoo terminates, if not in the Burrampooter. The *Indus* has its sources near the head of the Sanpoo, and flows northwesterly about 350 miles before it breaks through the great mountain barrier of Himala, and takes a southerly course. In the same region rises the *Sutledge*, the largest tributary of the Ganges; it issues from the *Lake of Rawan Hrad*, which is about 200 miles in circuit. *Lake Manasarowara*, in this vicinity, is a much smaller sheet of water, but it is an object of religious veneration among the Hindoos, who consider, that all the sins of the pilgrim are forgiven when he

* As a specimen of the wholesale butchery by which the English have established their power in Hindostan, read the following cool declaration of the Duke of Wellington, then Colonel Wellesley, commanding the British forces against the Mahrattas in 1800. "I have

taken and destroyed Dhoondiah's baggage and 6 guns, and driven into the Malpurba, where they were drowned, above ten thousand people. Dhoondiah's followers are quitting him space, as they do not think the amusement very gratifying."

emphes its sacred banks. The heads of the great Chinese rivers, *Hoangho* and *Kinag*, are in eastern Thibet, and those of the *Mecan*, are thought to be in the same region.

3. *Minerals.* Gold is found in great quantities, and very pure; sometimes in the form of gold dust in the beds of rivers, and sometimes in large masses and irregular veins. There is a lead mine about two days' journey from Teeshoo Loomboo, which probably contains silver. Cinnabar, abounding in quicksilver, rock-salt, and tincal, or crude borax, are likewise among the mineral productions of this country; the last is found in inexhaustible quantities. It is obtained in a lake north of Teeshoo Loomboo, where it is found crystalized, and taken up in large masses, that are broken up for convenience of transportation, and exposed to dry. Although the mineral has been long collected here, there are no signs of a diminution of the quantity; it is probably constantly forming by fresh deposits from the water. In Thibet, as in the west, borax is used for soldering, and as a flux in the fusion of gold and silver.

4. *Climate.* The climate of Thibet is cold and bleak in the extreme, from the severe effects of which the inhabitants are obliged to seek refuge in the sheltered valleys and hollows, or amidst the warmest aspects of the rocks. In the temperature of the seasons, however, a remarkable uniformity prevails, as well as in their periodical duration and return.

5. *Towns.* *Lassa* or *Hlassa*, the spiritual and temporal capital of Thibet, the Rome of Central Asia, is the residence of the Dalia-lama, and of the Chinese viceroy, and it contains a vast and magnificent temple or palace, surrounded by an immense bazar. *Lassa* is the seat of a great transit trade, and it contains a fixed population of about 100,000, besides a large floating population of traders and pilgrims. The summer residence of the Lama, on the height of Pootala, several miles from the city, is 350 feet high, and contains 10,000 rooms, the state apartments being at the top of the building, which is 7 stories in height. The towers and spires are covered with gold or silver, and there are innumerable images of Baddha of gold, silver, and bronze. In the surrounding plain there are 22 other temples, all richly adorned, and some of them almost rivaling that of Pootala. The whole number of priests here maintained at the public charge, is stated to exceed 90,000.

Teeshoo Loomboo or *Lubrong*, the seat of the Teeshoo Lama, and the capital of that part of Thibet which is immediately subject to his authority, is, in fact, a large monastery, consisting of three or four hundred houses, inhabited by 4,000 *gyllongs* (a kind of monks or priests), beside temples, mausoleums, and the palace of the pontiff, with the residences of the various subordinate officers, both ecclesiastical and civil, belonging to the court. It is included within the hollow face of a high rock, and its buildings are all of stone, none less than two stories high, flat-roofed, and crowned with a parapet.

6. *Manufactures. Commerce.* The manufactures of Thibet are rude, consisting principally of shawls and woolen cloth. The exports, which go chiefly to China and Bengal, consist of gold-dust, musk, rock-salt, wool, and lamb-skins; in return for which, silk, satin, gold and silver brocade, tea, tobacco, and furs of various kinds, are received from China; and from Bengal, the productions of that country, and a variety of English commodities and manufactures.

The people are rather stout and hardy, and of a ruddy complexion, for the mountain breezes bestow health and vigor. They are of various distinct tribes, little known. The language is of the Sanscrit stock, and is considered by the Chinese much superior to their own in sound. They have a great number of sacred books in their monasteries, but little is known of their contents. The Thibetans were found to be acquainted with Jupiter's satellites and Saturn's ring, and must, therefore, have made some progress in astronomical science.

The people of Thibet have made considerable progress in civilization, but the sciences are neglected. The literature is chiefly connected with the religion, and, together with the language, is of Hindoo origin. The houses are meanly constructed, and built of rough stones, with a few apertures to admit light. The people may in general be described as mild and gentle, and, though sunk in superstitions, free from many of the sanguinary customs of the Hindoos. The religion is that of Boodha, which has, however, undergone some changes. The Grand Lama, or supreme pontiff, it is supposed, is an incarnation of the Deity under different human forms. This creed includes a belief in the transmigration of souls, a future state, purgatory, invocation of saints, image worship, confession, absolution, pardon, celibacy, holy water, and various observances of the Romish church.

There are a great many recluses and temples. There are also a great many subordinate lamas or priests, who assume the whole business of prayer. They sell a certain number of prayers, which are written out and attached to the cylinder of a mill, and every turn is supposed

to constitute a valid prayer. Some are moved by water. The Thibetans are said to reverse the general practice of the East, in polygamy; it is related, that wives are permitted to have several husbands, all the brothers of a family having one wife among them, who is chosen by the eldest. The women are active and laborious, and enjoy a higher consideration than in other oriental countries. The dead are buried, burned, thrown into a stream, or exposed in the open air to be devoured by beasts. The Emperor of China has taken military possession of Thibet, under the pretence of protecting the Grand Lama, in whose name he acts.

The national dress of Thibet is composed of thick woollen cloth, and dressed sheepskins with the fleece turned inwards, forming a comfortable protection from the severity of the cold. The religious orders wear a vest of woollen cloth with red sleeves, a large mantle resembling a plaid with a kilt, and a pair of huge boots. Silks from China, and furs from Tartary are employed by the higher classes. A fine white silk scarf is an invariable present on occasions of ceremony, and is inclosed in complimentary letters. The religion of Thibet does not impose an austere abstinence in respect to food, but the heads of the church seem to value themselves on great simplicity of diet, and abstinence from strong liquors. Tea is the universal drink; not taken as with us, in a liquid form, but thickened with flour, salt, and butter, the leaves being retained, so as to form a mess by no means agreeable to a European palate. The exclusively religious character of the people of Thibet, is scarcely compatible with any very varied amusements; though their religious exercises, from their splendor and their imposing effect, may be almost looked upon as such. The game of chess is much played.

CHAPTER LXX. FARTHER INDIA, OR INDIA BEYOND THE GANGES.

1. *Boundaries.* Farther India, sometimes called Chin-India, comprises an extensive region lying to the east of Hindostan, and to the south of the Chinese empire. It has the Chinese Sea on the east and south, the Strait of Singapore on the south, and the Strait of Malacca and the Sea of Bengal on the west. It extends from lat. 2° to 29° north, and from long. 90° to 109° east.

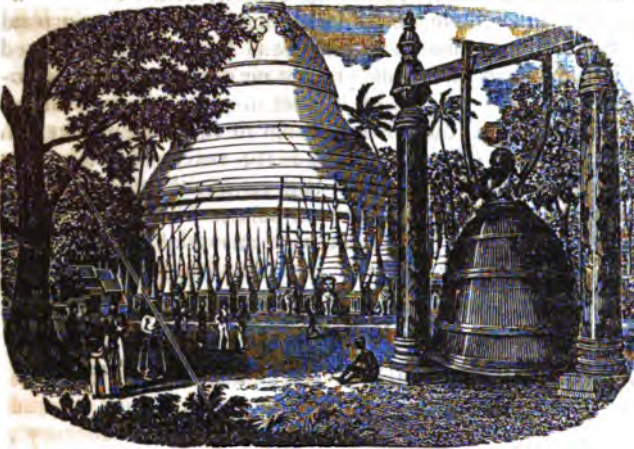
2. *Natural Features.* The interior of this country is little known. It appears to be traversed by some chains of the Himala Mountains, and it contains a number of large rivers, the sources and upper course of which have never been explored. The *Irawaddy*, one of the largest rivers in Asia, is supposed to rise in the Chinese empire; after traversing the Birman empire from north to south, it reaches the sea by 14 mouths, forming a delta 150 miles in width. The *Saluen*, which also traverses the Birman empire, empties itself into the Gulf of Martaban. These rivers overflow extensive tracts of level country in the lower part of their course. The *Menam* is a large river, supposed to rise in the Chinese province of Yunnan, and which, passing through Siam, intersects and fertilizes that country by numerous branches, and enters the Gulf of Siam. The *Mecon* rises in Thibet, and after traversing the Chinese province of Yunnan, and the kingdom of Cambodia, it flows into the sea under the name of the river of Cambodia. The climate and productions do not differ materially from those of Hindostan.

3. *Divisions.* Farther India comprises, beside several barbarous peoples, who are independent, Tonquin, Cochinchina and Cambodia, lately the empire of Annam; the kingdom of Siam, including Siam and Southern Laos; the Birman empire, including Birman proper, or Ava, Pegu, and Northern Laos, or Shans; the States of Malacca, the Andaman and Nicobar islands, and the English possessions.

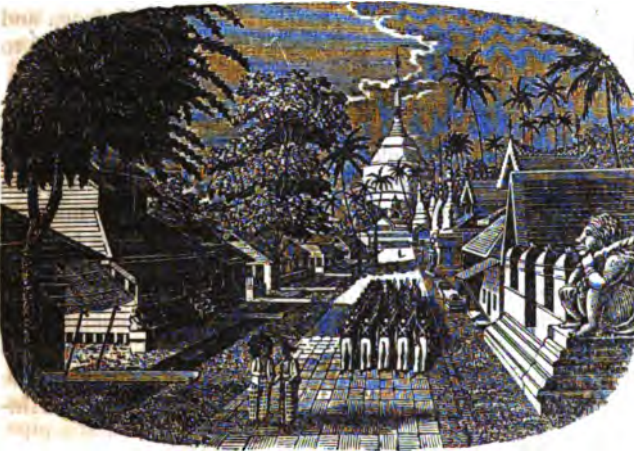
4. *Birman Empire.* This State is bounded on the north by the English province of Assam, and the Chinese province of Yunnan; east by Yunnan and Annam; south by the Sea of Bengal, and west by that sea and the English province of Arracan. It has an area of about 150,000 square miles, and is estimated to contain about 6,000,000 inhabitants.

Ava, the capital, is a large but not very populous city, upon the *Irawaddy*; it is mainly built, consisting mainly of thatched cabins, with a few brick houses. *Ava*, like all the Birmese towns, contains numerous temples, with tall, gilded spires, which make a show at a distance, but they are built of wood, as are also the monasteries and the palace. The population is estimated to amount to 100,000. *Umerapoora*, which was once the capital, is also built chiefly of wood; here is a temple, which contains a colossal image of Godama, or Buddha, and a gilded

very with numerous ancient inscriptions on stone, collected from different parts of the empire. Population 80,000. *Saigaing*, opposite to Ava, is also a large town, filled with an astonishing number of temples. *Pegu*, upon the river of the same name, in the kingdom of Pegu, was destroyed by the Birmese in 1757, and has but few inhabitants. It is chiefly remarkable for the temple of Shumadu, a large brick pyramid 330 feet high, and 1,296 feet in circuit at the base, without any aperture. This portion of the Birmese dominions, has lately been conquered by the English, and annexed to their East India territories. It includes within its limits *Rangoon*, upon one of the branches of the Irwaddy, which, although a meanly built city, was the



Temple at Rangoon.



Shoodagon.

principal commercial place in the empire, and is the great mart for teak-wood, which is exported to Hindostan. Here is a temple similar to that at Pegu. "Two miles from Rangoon," says Malcolm, "is the celebrated pagoda called Shoodagon. It stands on a small hill, surrounded by many smaller pagodas, some fine *zayats* [*caravanserais*] and *kyoungs* [*monasteries*], and many noble trees. The two principal approaches from the city, are lined on each side, for a mile, with fine pagodas, some vieing for size with Shoodagon itself. Passing these on your way from the city, you come to a flight of time-worn steps, covered by a curious arcade of little houses of various forms and sizes, one above another. After crossing some terraces, covered in the same manner, you reach the top, and, passing a great gate, enter at once this sad but imposing theatre of Gaudama's glory. Before you stands the huge Shoodagon, its top among the clouds, and its golden sides blazing in the glories of an eastern sun. Around are pompous *zayats*, noble pavements, Gothic mausoleums, uncouth colossal lions, curious stone umbrellas, gracefully cylindrical banners of gold-embroidered muslin, hanging from lofty pillars, enormous stone jars in rows to re-

ceive offerings, tapers burning before the images, exquisite flowers displayed on every side, and a multitude of carved figures of idols, griffins, guardians, &c." Population, 20,000.

The inhabitants are the Avans, or proper Birmans, and Peguans, or Talings, who are evidently only branches of one nation, and who form above one half of the population; the Karens, in the south; the Shans, or Laos, in the west; the Singphoos and Bengs, in the north, and several other tribes or nations, of whom little is known. The Birmans are short, robust, and active; the face is flat, with high cheek-bones, the complexion dark, but much lighter than that of the Hindoos, the hair black, lank, and coarse, the beard scanty.

The Birmans are inferior to the Hindoos and Chinese in arts, manufactures, and industry, and in all the institutions of civil life. They are ignorant of literature and science, and unskilled in navigation. The government is a pure despotism, the king dispensing torture, imprisonment, and death, according to his sovereign pleasure. The criminal code is barbarous and severe, and the punishments inflicted are shocking to humanity; the ordeal and other superstitious modes

of proceeding are resorted to, but the administration of justice is so inefficient, that the country is overrun with robbers and criminals.

The Burmese are distinguished into 7 classes, which have each peculiar privileges; these are the royal family, the public officers, the priests, the rich men, the laborers, the slaves, and outcasts. None of the classes constitutes an hereditary caste, except the slaves of pagodas and outcasts, and all except these may aspire to the highest honors, which are often bestowed on persons of low origin. The laborers are considered as slaves of the king, who may at all times command their services. Women are not shut up, as in many eastern countries, but in many respects they are exposed to the most degrading treatment, and may even be sold for a time to strangers. A Birman cannot leave the country without the permission of the king, which is only granted for a limited time, and women are never allowed to quit it at all.

The houses are of slight materials, but they are sufficiently commodious and comfortable. Bamboos fixed in the ground, and tied horizontally with strips of rattan, compose the framework, which is then covered with mats and thatched with grass. A spacious mansion may be built in one or two days, and a tolerable house in a few hours. The frequent devastations occasioned by fire are, therefore, easily and speedily repaired. The houses of the most wealthy, in the large towns, are, however, often built of wood, with planked floors, and paneled doors and window-shutters, but without laths, plaster, or glass. But the architectural taste and skill of the Burmese is more favorably displayed in the *zayats*, pagodas, and temples, some of which are truly magnificent and noble. The description already given of the Shoodagon, is a sufficient illustration of this remark.

The dress exhibits the same contrast as in other semi-civilized countries; that of the poor, slight and scanty; that of the rich, splendid. The attire of the ordinary Birman females, is merely a loose robe or sheet, tucked under the arm, which scarcely serves the purposes of decency; the higher classes, and even some of the lower, add an *ingle* or jacket, open in front, and generally of muslin or lace. Nothing is worn on the head, but a cigar is very commonly seen in the mouth or hand. The men of the working classes are nearly naked, the dress consisting merely of a narrow strip of cotton wound round the middle, or, when not at work, thrown over the shoulder. The nobles wear a similar wrapper of silk or velvet, with a jacket, and all classes invariably wear the turban. The particular dress, and the ornaments indicate the rank of the wearer, and must on no account be assumed by an inferior class; the same remark is true of the architecture and ornaments of houses. The use of gold in ear-rings, large quills, and masses, and as the ma-



Burmese.

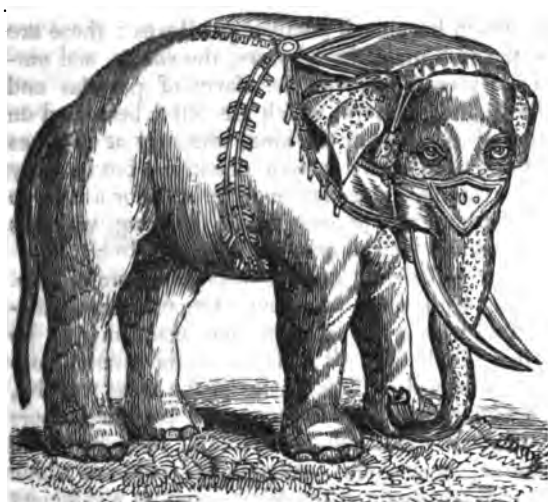
terial of the betel box, spittoon, and drinking cup, designates a nobleman of the first rank.

The principal article of food is rice, generally cooked with chillie or capsicum, but various other vegetables are much used; roots, fruits, seeds, leaves, and blossoms, with insects, reptiles, fish, &c. It is not lawful to take the life of tame animals, but even this rule is often evaded, and the flesh of any that have died by accident or disease, is gladly devoured. The rice is eaten with the fingers. Smoking tobacco is almost universal with both sexes; the pipe is rarely used, but the cheroot is as rarely wanting. Chewing the mixture called *coon* is common here, as in some of the neighboring countries. This preparation consists of a slice of the *areca* nut, a small piece of *cutch* or gum, and some tobacco, rolled up in a leaf of betel pepper, which is smeared with *chunam* or lime. It turns the teeth black, colors the mouth a deep red, and excites profuse saliva. The custom of blacking the teeth is here universal.

The foreign commerce of Birman is considerable, but it is carried on by foreign vessels; the inland trade with China is more important, and is carried on by means of caravans, consisting of from 50 to 200 men, each having from 10 to 20 mules or horses, carrying panniers. These animals are guided by large black dogs, some of which lead the way, and others follow, to bring up the stragglers. Raw cotton, wax, *cutch*, stick *lack*, *tripang* or sea-slug, shark's *fin*, &c., are sent to China, and teak-wood in large quantities to the British territories. Chinese and British manufactured articles are imported.

The military force consists entirely of a feudal militia, which, in the late war with the British, proved itself brave and enterprising, but badly disciplined and organized, and poorly armed. There are about 500 war boats, which are from 80 to 100 feet long, and carry from 50 to

40 armed rowers, with about 25 or 30 soldiers, and a small piece of cannon. The revenue of



White Elephant.

the sovereign consists of a land tax, or rather rent, for the whole country is esteemed the property of the ruler. The tax is a tenth of the produce, and is paid in kind, so that its amount is not easily ascertained. "Among the possessions of the king, we must not omit to notice his elephants. He is regarded as owning all in the kingdom, and has generally from one to two thousand, which have been caught and tamed. The white elephant, of which there is now but one, is estimated above all price. He is treated like a prince of the blood, and has a suite composed of some of the most prominent officers of the court. Indeed, the vulgar actually pay him divine honors, though this is ridiculed by the intelligent." — *Malcom.*

This part of the country has been subject to several remarkable revolutions since it became known to Europeans. In the

16th century, Pegu was the ruling State; but in the middle of the next century, the Avans not only threw off the yoke, but they subdued their former masters. In the 18th century, this state of things was again reversed; but Alompra, not long after, again restored the supremacy of Ava, and both he and his successors added numerous provinces by conquest; Cachar, Cassay, Arzacan, parts of Siam and Malacca, were reduced under the Burmese sway. In 1826, a war with the British East India Company broke out, in which the Burmese were worsted, and they were obliged to pay the expenses of the war, beside ceding the western and Malacca dependencies above mentioned, to the company.

5 Kingdom of Siam. This kingdom, comprising Siam Proper and part of Laos, Cambodia, and Malacca, is bounded N. by China; E. by the empire of Annam; S. by the Chinese sea and the Gulf of Siam; and W. by the Strait of Malacca and the Burman empire. It has an area of 200,000 square miles, and 3,600,000 inhabitants.

Bangkok, on the Menam, near its mouth, is a large city, with an active commerce. It is entirely built of wood, with the exception of the palace and the temples, and has about 90,000 inhabitants, nearly three quarters of whom are Chinese, who carry on all the foreign commerce of Siam. A great number of houses are built upon rafts moored in the river, and forming a floating city by itself.

Siam, or **Yuthia**, formerly the capital, and once a large and populous city, is now in ruins. In regard to food, dress, buildings, religion, government, &c., the Siamese in general resemble the Burmese, but with many minor points of difference. In approaching their superiors, they submit to the most servile and humiliating ceremonies, crawling on their hands and knees, or throwing themselves prostrate on the ground, as it is a fixed rule, that the head of the inferior must never be raised higher than that of his superior. The Siamese call Gaudama Somonacedon, and Boodha, Pra Poota Chow, or the Lord God Boodha, and the rites are nearly the same as in Birman. Mr. Malcom remarks, that the Burmans make stupendous pagodas and monasteries, while the temples and zavats are comparatively small; but the Siamese construct small pagodas and priests' houses, and bestow their wealth and labor on the temples; between these and the dwelling-houses, there is the same contrast as in Birman. Both in regard to personal appearance and in the arts, they are much behind the Burmese. The dress is but an imperfect covering, and for both sexes alike, consisting merely of a strip of cloth wrapped round the legs, passed between the thighs, and tucked in at the small of the back. The moral character of the Siamese, as drawn by travelers, is by no means flattering; they are said to be slothful, indolent, and cowardly, but boastful, arrogant, and false; and they have been pronounced a nation of liars. So arrogant and full of national pride are they, that they esteem the nearest Siamese superior to the greatest subject of any other nation; they are, however, peaceful, temperate, and orderly. The commerce is considerable, but is chiefly carried on by Chinese

junks, and European and American ships. Sugar, pepper, gums, and rice, are the principal articles of export; European and Chinese manufactures are imported. According to Mr. Malcom, the commerce of Bangkok is greater than that of any other city not inhabited by whites, with the exception of Canton. The Malay States are in part tributary to Siam, in part only nominally subject, and in part, both in fact and name, entirely independent. Keda, Ligore, Patani, Salengore, Pahang, &c. are among these States. The inhabitants are Malays, who are nowhere else found on the continent, but are very widely diffused over the great islands, and will be elsewhere described.

6. *Empire of Annam.* Annam is bounded north by China; south and east by the Chinese Sea, and west by the Siamese State. It comprises the kingdoms of Cochin China, Tonquin, Tsiampa, Cambodia, part of Laos, &c. Area, 280,000 sq. ms.; pop., 12,000,000.

Hue is remarkable for its vast military works, its granaries, barracks, magazines, and arsenals; the ditch which surrounds the place is 8 miles in circuit, and 100 feet broad, and the walls are 60 feet high. The palace of the emperor is also an edifice of great size and strength, and there are here a large cannon foundry and a dock-yard. Pop., 100,000. *Kesho*, formerly capital of the kingdom of Tonquin, is now much reduced in importance. Pop., 40,000. *Saigon*, capital of Cambodia, upon the Donnai, has 100,000 inhabitants. Its citadel is hardly inferior in strength and extent of its works to that of Hue, and there is here a dock-yard on an extensive scale, at which an American navigator a few years since saw 190 galleys, and two frigates built on the European model. The houses are mostly of wood thatched with rice straw or palm leaves, and without glass.

The government of Annam, as well as that of Siam, is of the most despotic character, and in both these States, as in the Birman empire, every male subject above 20 years of age, excepting the priests and public officers, is obliged to give every third year to the service of government, either as a soldier or a laborer. The inhabitants are short and squat, and have an expression of sprightliness, intelligence, and good humor. The women are little better than mere slaves, being obliged to perform all the labor. Arts, manufactures, and agriculture are in a backward condition and make no progress. The people are generally poor, and live in miserable huts, with little furniture.

7. *English Territories.* The possessions of the E. I. Comp'y in Farther India consist of several detached territories; the countries between Bengal and the Birman empire comprise *Assam*, *Cashan*, the country of the *Garrows*, *Arracan*, &c.; on the east of the Saluen are several provinces between the Birman empire, Siam, and the Sea of Bengal, including *Tavoy*, *Yeh*, *Martaban*, and *Tenasserine*; the isle of *Pulo Penang*, or Prince of Wales' Island, and that of *Sincapore*, with a part of Malacca, also belong to the Company. *Arracan* is a large town, built upon a spot overflowed by the river of the same name, and consisting chiefly of bamboo huts. Pop. 30,000. *Anherst Town*, founded 1826, stands at the mouth of the Saluen, having 10,000 inhabitants. *Maulmain*, which was founded still later, is the metropolis of British Birmah, the residence of the governor. The situation is healthy, the commerce flourishing, and the population already numbers about 18,000 souls. The Baptists have a missionary station and a press here. *Georgetown*, on the Prince of Wales' Island, is also a flourishing town, with an increasing commerce. Population, 15,000. *Malacca* was ceded to England by the Dutch, in 1825, but the rise of Sincapore and Georgetown, has drawn away much of its trade. Here is an Anglo-Chinese college. *Sincapore*, founded by the British in 1819, is already become a place of great commercial importance, and the great mart of this part of the world. It has 30,000 inhabitants, of whom 10,000 are Malays, and 12,000 Chinese.

8. *Islands.* The *Andaman* and *Nicobar* islands form a long chain of rocks and islets in the Sea of Bengal, occupied by independent native tribes. The Andaman group consists of three principal islands, and a great number of smaller ones, inhabited by a fierce and savage race of blacks. The Nicobar group is composed of ten principal and numerous smaller isles, inhabited by a gentle and peaceable people resembling the Malays.

9. *Religion.* Buddhism is professed by the Birmans, the Arracanians, Peguans, Siamese, Laosians, Cambodians, and by the lower classes in Cochin China and Tonquin. Some of the educated classes in the latter countries adhere to the doctrines of Confucius. Bramanism has some followers in Assam, Cashan, &c., and the Malays, who have settled on the coasts are Mahometans. Many barbarous tribes in the interior have no religious rites, or are attached to the most absurd superstitions. Christianity has made some converts in the Birman empire and in Annam.

CHAPTER LXXI. CHINESE TARTARY.

1. *Boundaries.* This country is bounded north by Russia, east by the Sea of Corea and the Channel of Tartary, south by China, and west by Independent Tartary. It is inhabited by wandering tribes, but only the western part is occupied by the Turco-Tartars, the rest being in the possession of the Monguls and the Mantchoos, who are entirely distinct from them. This country is commonly divided into three parts. 1. *Little Bucharía*, in the west; 2. *Mongolia*, in the middle; and 3. *the land of the Mantchoos*, in the east.

2. *Surface.* Most of the country between the Himala and Altaian Mountains lies at a great elevation above the sea, and is composed of several table-lands, intersected by the mountain chains already described under the head of Asia. Between the Altaian and Teenshan mountains is the table-land of Zoongaria, from 2,000 to 2,500 feet above the level of the sea, containing Lake Palcati. Between Teenshan and Kwanlun is the plateau of Little Bucharía from 6,000 to 9,000 feet high, in which lies Lake Lop. Between Kwanlun and the Himala are the two table-lands of Eastern Thibet and Western Thibet, elevated from 9,000 to 14,000 feet above the sea. The Mongolian table-land is from 8,000 to 12,000 feet high, and stretches along the northwestern borders of China Proper. Two great deserts occupy a considerable part of this cold and dreary region; the desert of *Cobi* or *Shamo*, extending through Mongolia, and the *Central Desert* occupying a part of Little Bucharía. On these plateaux and deserts are scattered volcanic peaks and salt lakes. The desert of Cobi, is about 2,000 miles in length, from northeast to southwest, and from 400 to 600 in breadth, and is crossed like the great African desert by caravans with camels. The ground is covered in many places with short and short grass, but the water is generally so brackish as to be scarcely drinkable.

3. *Rivers.* Several large rivers traverse this great region. Of these the *Amour* or *Saghalien*, which, after a long, winding course of 1,800 miles, through Eastern Tartary, falls into the Sea of Okotsk, is the principal, and vies with the largest Asiatic streams; but, from its unfavorable position, it contributes little to communication. The *Yarkand* or *Tarim* flows eastwardly through little Bucharía into the great lake of Lop. North of the Teenshan, is the *Li*, a considerable stream, also running east into lake Palcati or Balkash.

4. *Little Bucharía.* This country appears to be bounded north and east by Mongolia; south by Thibet, and west by Independent Tartary. It is almost entirely unknown to Europeans, and all the materials on which its description is founded are imperfect and obscure. The inhabitants are Turks and Mahometans, and since 1759 have been tributary to the Chinese. The principal towns are, Yarkand, Cashgar, and Aksou. This country is called by the Chinese *Teenshan-nauloo*, or the province south of the Teenshan. The former kingdom of Cashgar, which is now incorporated with it, forms a wide, fertile, and beautiful plain east of the Beloor Mountains; this fine region, rising like an oasis in a vast desert, is well-watered, and carefully cultivated. *Cashgar* is an old and handsomely built city, and the seat of considerable trade. It has about 40,000 inhabitants, and is occupied by a Chinese garrison. *Yarkand* is a still larger and more busy city, being the great centre of the inland trade of Asia, and the depot of the traffic



Turco-Tartars.

between the north and the south, the east and the west. It contains a great number of shops and warehouses kept by Chinese, numerous caravanseries for the reception of strangers, and its bazar is remarkable for its great extent. There are also many *madresses* or colleges here, and the population is estimated at 70,000. *Aksou* is also a great mart and resort for the caravans, and has about the same number of inhabitants. *Khoten*, *Turfan*, *Hissar*, and *Hami*, appear to be important towns, of which we know nothing but their names and their celebrity in the East.

5. *Mongolia.* Mongolia is an extensive country bounded north by Asiatic Russia, east by the land of the Mantchoos, south by China and Thibet, and west by Little Bucharía and Independent Tartary. It includes a great part of the desert of Shamo or Cobi, and is traversed by the wandering hordes of that nomadic race, which, under the name of Monguls or Moguls, have been so celebrated in the annals of Asia. Under Genghis Khan they extended their de

manion not only over the finest regions of this continent, but over a great part of northern Europe. At present they are split into a number of petty States, dependent on the emperor of China. The Calmucks, Mongols Proper, Kalkas, the Eluths, on the Lake of Kokonor, and the Sifans, seem to be the principal tribes. The Mongol tribes are diminutive in person, but muscular and active; the countenance is broad, square, and flat, with high cheek-bones, nose depressed, eyes small and black and bending obliquely towards the nose, thick lips, and thin, black hair. The Kalkas or Black Mongols have been described by a traveler as the dirtiest and ugliest race he ever saw, except the Hottentots. The Mongols lead a roaming, pastoral life, with numerous herds and flocks. They are Boodhists, and have numerous lamas and *ghazims* or monks, but these have not the same influence with their brethren in Thibet. In the eastern part of this region was the celebrated *Karakorum*, the capital of the largest empire that ever existed, and the residence of the famous Kublai Khan, but its precise situation is unknown. The province of Teenshan-peloo, comprising Zoongaria, the country of the Torgots, and that of the Kirghises, may be considered an appendage of Western Mongolia.

6. *Country of the Mantchoos or Manchoos.* This country is bounded north by Siberia, from which it is separated by the Altaian Mountains, east by the Sea of Japan, south by Corea and China Proper, and west by a chain of mountains which separates it from Mongolia. It is watered by the great river *Amour*, and is almost as extensive as China Proper, but is less known to Europeans than Central Asia. The inhabitants were originally nomades, but since they conquered China, in 1644, their union with a civilized people has occasioned the introduction of agriculture and the arts, and a part of the nation now inhabit towns and villages. The race who at present occupy the throne in China originated in this country.

Our knowledge of this country comes chiefly from Chinese descriptions, which are in general meagre and pompous. It presents generally a different aspect from those immense and naked plains which characterize the centre of Asia. It appears to be diversified by rugged and broken mountain ranges, covered with thick forests, and separated by valleys, many of which, notwithstanding the coldness of the climate, possess considerable fertility. Their recesses are filled with wild beasts of a formidable character, and in such crowds as to render traveling dangerous. Wheat is raised only in the most favored spots; the prevalent culture is that of oats, elsewhere scarcely an Asiatic grain. The product most valued abroad is the ginseng, the universal medicine in the eye of the Chinese, who boast, that it would render man immortal were it possible for him to become so. It grows upon the sides of the mountains. The shores of the Eastern Ocean appeared to La Perouse covered with magnificent forests, but abandoned to nature; a singular circumstance in a region so closely bordering on the over-cultivated and crowded empire of China.

The Mantchoos are by no means destitute of civilization. They possess even a language and writing, essentially different from that of the Chinese, or of any other nation of Central Asia. The language is distinguished by an excess of smoothness, which forbids two consonants ever to come in contact with each other.

The Mantchoos are tall and robust, and the eyes larger, and the face less flat than is the case with the Mongols. They are Boodhists in religion. A part of Mantchooria has been incorporated with the Chinese province of Tchele, and contains *Gehol*, the summer residence and hunting-seat of the emperors. The gardens are very superb and extensive. Bordering on Corea, is the province of Shin Yang or Leaotong, very populous and fertile, and containing cities bearing those names. The northern region on the Amour is called Zitzikar, and is the original seat of the conquering race. Further east and north is Daouria, inhabited by a mixed race of Mongols and Mantchoos.

The large island of *Saghalien* or Tarrakai is partly occupied by the Mantchoos, but the natives are of a wholly distinct race, called Ainos. They are said by travelers to differ from the inhabitants of the continent in their physical characteristics, but we have no accurate details about them. They derive their subsistence from the chase and fishing, and seem to have no knowledge of agriculture, and to be destitute of flocks and herds; yet they are described as mild, peaceable, generous, and affectionate in their dispositions. Saghalien is about 150 miles in length by 80 in breadth, and is separated from the mainland by the Channel of Tartary, but is thought to be connected with the continent by a low, narrow, sandy neck. The island has the appearance of fertility, and the seas around abound with whales and fish.

CHAPTER LXXII. CHINA.



Chinese Ladies.

1. *Boundaries and Extent.* China is bounded by Chinese Tartary on the north; by the Pacific Ocean on the east; by the Chinese Sea on the south; and by Tartary, Thibet, Birmah, and Annam, on the west. It extends from 20° to 41° N. lat., and from 100° to 121° E. long., and contains 1,300,000 square miles.

The Chinese empire stretches from 18° to 56° N. lat., and from 70° to 140° E. long., covering an area of above 5,300,000 sq. m. or one tenth of the whole land surface of the earth. The population of this vast region is very differently stated, according to the opinion adopted in relation to China Proper, the estimates of which vary from 150 to 360 m.; if the former sum is adopted, the population of the whole empire may be conjectured to be about 185 millions, if the latter, 395 millions. The regions included under the Chinese rule, are China Proper, Corea, Thibet, Bootan, Manchooria, Mongolia, Chinese Turkistan or Little Bucharia, the Loo Choo islands, &c.

2. *Mountains.* The provinces of Yunan, Koeicheou, Sechueen, and Fochien, are so mountainous as greatly to obstruct cultivation; and that of Chekiang has lofty and precipitous mountains on the west. In the province of Kiangnan there is a district full of high mountains, which are also numerous in the provinces of Shensee and Shansee. The greater part of the country, however, is level, and most assiduously cultivated.

3. *Rivers.* The two principal rivers of China, are the *Hoangho* and the *Kiangku*; the former, called the Yellow River, from its discolorment by the mud, which its waters bring down, has its source among the mountains of Thibet, and falls into the Yellow Sea, after a course of 1,860 miles. The *Kiangku* rises near the source of the *Hoangho*, and after passing the city of Nankin, falls into the sea about 100 miles to the south of the mouth of the *Hoangho*, having traversed a course of 2,000 miles. There are many rivers of inferior note in China; but the water of this country is in general very indifferent, and, in some places, must be boiled to make it fit for use.

4. *Islands.* The island of *Hai-nan*, lies upon the southern coast, and forms the eastern limit of the Gulf of Tonquin. It contains 14,000 square miles and is partly mountainous. It produces sugar, indigo, cotton, and rice. Further north is *Formosa*, a very beautiful island; it is rich and populous, but subject to earthquakes. Further to the east are the *Leo Choo Islands*, which are well inhabited and productive. The *Ladrons Islands*, to the south of the bay of Canton, are peopled by a race of pirates.

5. *Climate and Soil.* The climate of China varies according to the situation of the places. Toward the north it is cold, in the middle mild, and in the south hot. It is subject in general to great extremes, and resembles rather the climate of the United States, than that of Europe and Africa in corresponding latitudes. The soil is, either by nature or art, fruitful of everything that can minister to the necessities, conveniences, or luxuries of life; and agriculture is carried to a high degree of excellence.

6. *Minerals.* Gold is obtained from the sands of rivers in Szechuen and Yunan, but no mines are worked. Silver occurs in considerable abundance, and silver mines are worked in Yunan. Tutenague or zinc, of which the Chinese make vessels and utensils, occurs in Hoopee. Yellow copper comes from Yunan and other provinces, and is employed for making small coin, which is current throughout the empire; no gold or silver is coined. The famous petung or white copper, which takes a polish like silver, also comes from Yunan, and quicksilver is obtained in Kweichoo. Lead and tin occur, and realgar, or native sulphuret of arsenic, is used in blocks for making pagodas and vases. Earthy felspar or kaolin, also called porcelain earth, an important material in the manufacture of the beautiful China ware, abounds in some provinces, but the Chinese reckon *yw* or jade as the first of mineral substances, and it is much used for ornamental purposes. Coal extends through considerable tracts, and good marble and granite are found.

7. *Vegetable Productions.* China produces all the fruits common to the tropical and temperate countries. The camphor (*Laurus camphora*), tallow (*Croton sebiferus*), and cinnamon trees are common in the fields and gardens. The most celebrated production is the tea plant, which grows wild here, but is much improved by careful culture. It is a shrub 5 or 6 feet in height, producing leaves of different flavor according to the soil, and care with which it is cultivated. It is generally grown in gardens or plantations of no great extent. The leaves are gathered by the cultivator's family, and carried to market, where they are bought by persons, whose trade it is to dry them; the black teas are dried by exposure to the air, the green in iron vessels over a fire. Some of the leaf buds of the finest black tea plants are picked early before they expand; these constitute pekoe or the best black tea; the second, third, and fourth crops afford the inferior qualities. In the same manner the first crop of the green tea plant is gunpowder; the second, third, and fourth, imperial hyson, and young hyson; hyson-skin consists of the light leaves obtained from the hyson by winnowing. The quantity annually exported to Europe and America is about 60 million pounds, besides which it is largely sent to other countries of Asia, and consumed in vast quantities at home. Japan and China are the only countries which produce it. Rice (*Oryza sativa*), is, perhaps, more generally grown and consumed in China than in any other country; the delicate substance called rice-paper is not made from this plant, but is prepared from the pith of some unknown species. The sugar-cane is a native of China, and there are several species of orange. The banana, cocoa, pomegranate, guava, lichi, lemon, fig, and other fruits abound. The pride of India (*Melia Azedarach*), the camelias, the nelumbo or sacred bean of India, the olive (*Olea fragrans*), the tree-peony &c., are admired for the beauty or fragrance of their flowers.

8. *Canals.* The *Imperial Canal* is the greatest work of the kind in the world, being 700 miles in length, and, with the aid of several navigable rivers, affording a line of inland navigation from Pekin to Canton, interrupted only by a single portage. There are many other canals; the Chinese are unacquainted with the construction of locks, and the boats pass from one level to another on inclined planes, over which they are drawn upon rollers by men.

9. *Towns.* *Pekin*, the capital of the whole empire of China, and the ordinary residence of the emperor, is situated in a very fertile plain, 20 leagues distant from the great wall. It is of an oblong form, and is divided into two towns; that which contains the emperor's palace is called the Tartar city. The walls and gates are of the height of 50 feet, so that they hide the whole city, and are so broad, that sentinels are placed upon them on horseback; there are slopes within the city of considerable length, by which horsemen may ascend the walls, and in several places there are houses built for the guards. The gates, which are 9 in number, are

not embellished with statues or other carving, all their beauty consisting in their prodigious height, which at a distance gives them a noble appearance. The arches of the gates are built of marble; and the rest of large bricks, cemented with excellent mortar. Most of the streets are built in a direct line; the largest are about 120 feet broad, and above 2 miles in length; but the houses are poorly built in front, and very low; most of them having only a ground floor; and few exceeding one story above it. They are often showily ornamented with gilded sculptures. Among the rich the doors are often of aromatic wood, richly carved; glass is not used in the windows, and its place is supplied by paper. Of all the buildings in this great city, the most remarkable is the imperial palace; the grandeur of which does not consist so much in the nobleness and elegance of the architecture, as in the multitude of its buildings, courts, and gardens, all regularly disposed. The population of Peking is supposed to be about 1,500,000.

Nanking was the royal residence till the 15th century, but it is now a declining city, and a large space within its circuit is uninhabited. It is regularly built, and is a neat if not handsome town. Near the entrance are two temples, one of which is rendered interesting by the skillful execution of the figures of about 20 Chinese philosophers and saints, surrounding a great hall. The city has obtained celebrity by the porcelain tower, and by the manufacture of nankeen. Population, 500,000.

Canton is the largest port in China, and the only port that has been much frequented by Europeans. The city wall is above 5 miles in circumference, with very pleasant walks around it. From the tops of some adjacent hills, on which forts are built, you have a fine prospect of the country. It is beautifully interspersed with mountains, little hills, and valleys, all green; and these are pleasantly diversified with small towns, villages, high towers, temples, the seats of mandarins and other great men, which are watered by delightful lakes, canals, and small branches from the river, on which are numberless boats and junks, sailing different ways through the most fertile parts of the country. The streets of Canton are very straight, though generally narrow, and are paved with flag-stones. There are many pretty buildings in this city, great numbers of triumphal arches, and temples well stocked with images. There are many private walks about the skirts of the town, where those of the better sort have their houses, but which are very little frequented by Europeans, whose business lies chiefly in the trading part of the city, where there are only shops and warehouses. It is computed that there are in this city and its suburbs, nearly 1,000,000 persons, and there are often 5,000 trading vessels lying before the city. What is called the boat-town is composed of thousands of boats occupied by individuals, some of whom are not even allowed to enter the city.

Singan, upon a branch of the Hoangho in the western part of China, is one of the largest towns, and strongest fortresses, in the country. It is said to have a population of 3,000,000 souls. *Hangchow*, near the coast to the southeast of Nanking, is a large town with extensive manufactures and commerce, and a good harbor; its population is estimated at 600,000. *Souchou*, upon the imperial canal, is a flourishing place, and is said to contain 700,000 inhabitants. There are many other large towns in China, the seats of manufacturing and commercial industry, but little remarkable except for their size and population. The Chinese towns have no proper name; but are merely designated from the district of which they are the capital, as the city of Canton, that is, of the province of the name; or from some other circumstance; as Peking, the northern court, that is, the northern residence of the Chinese court, &c.

Macao, upon a peninsula on the southern coast of China, belongs to the Portuguese; it is fortified and has considerable commerce, but is much sunk in importance. Its population is about 30,000. The island of *Hong Kong*, near by, has been assigned to the English by the late treaty, and a town is growing up there.

10. *Agriculture*. The soil in China is considered to be the property of the emperor, every tenant paying one tenth of the produce of the land as a rent. Such tenants often underlet portions of their estate upon half profits. The processes of agriculture are very imperfect, and the artificial methods of cultivation practised in Europe are unknown. In the vicinities of the great cities, every inch of ground is carefully cultivated, and the hills are diligently formed into terraces; but a great part of the land, even in China Proper, is quite waste, and in the other parts of the empire husbandry is still less attended to.

11. *Manufactures*. China is so happily situated, and produces such a variety of materials for manufactures, that it may be said to be the native land of industry; but it is an industry without taste or elegance, though carried on with great art and neatness. The Chinese make paper of the bark of bamboo and other trees, as well as of cotton, but not comparable, for

records or painting, to the European. Their ink, for the use of drawing, called *Indian ink*, is said to be made of glue and lamp-black. The manufacture of that earthen-ware, generally known by the name of China, was long a secret in Europe; but several European nations now exceed the Chinese in manufacturing this commodity. The Chinese silks are generally plain or flowered gauze; and they are said to have been originally fabricated in this country, where the art of rearing the silk-worm was first discovered. The Chinese manufacture silks likewise of a more durable kind; and their cotton and other cloths are famous for furnishing a light, warm wear. Their furniture, vessels, utensils, and instruments of all kinds, are distinguished for the firmness of the work. They have from time immemorial been acquainted with the art of working in metals, polishing and cutting precious stones, and making musical instruments. Engraving on wood, and stereotype printing have been practised by them for 700 or 800 years. They excel in embroidery, in varnishing, dyeing, carving in ivory, filagree-work, and almost every art, that requires minute attention, patience, and manual dexterity. The Coreans rival the Chinese in industry, particularly in the fabrication of nankeen and writing paper.

12. Commerce. The domestic trade of the Chinese empire is more important than the foreign; it is carried on by means of numerous rivers and canals, and consists principally in the exchange of the natural productions or manufactures of the different provinces. The vast extent of the country, and the great diversity of its products have caused the Chinese to neglect foreign commerce; still, however, their junks are to be found in all parts of the Indian seas. The commerce with Europe and America was formerly limited to the single port of Canton; but, by the late treaties, it has been extended to four other ports, Amoy, Foo-chow-foo, Ningpo and Shanghai.



Chinese Junk and Barge.

The trade is principally in the hands of the English and Americans, and still centers at Canton. The institution of the Hong merchants at Canton, a sort of native company or corporation, which had in a great measure the control of the trade with foreigners has been abolished. The expected increase of the trade with China has not followed the opening of the four ports. Beside the maritime foreign commerce, there is an extensive inland foreign trade carried on with Siberia, through Maimatchin, opposite to Kiachta; with Turkistan, through Yarkland; with Hindostan, through Lassa; and with the Birman empire and Annam. Tea, nankeen, rhubarb, ginger, porcelain, &c., are the chief articles of export. Opium from India,* furs from North American and Siberia, sandal-wood, edible bird's nests, biche de mer or tripang, ivory, ginseng, and tobacco are among the principal imports.

* The opium trade has been a great curse to China, and has been carried on for many years by the English and American traders, in spite of the most rigorous precautions and prohibitions of the Chinese government. "We have little reason to wonder," says Mr. Malcom, "at the reluctance of China to extend her intercourse with foreigners. Nearly the whole of such intercourse brings upon her pestilence, poverty, crime, and disturbance. No person can describe the horrors of the opium trade. The drug is produced by compulsion, accompanied with miseries to the cultivators, as great as slaves endure in any part of the world. The prices paid to the producer scarcely sustain life and are much less than the article produces in China. The influence of the drug on China is more awful and extensive than that of rum in any country, and worse to its victims than any outward slavery." To such a pitch was the traffic carried, that in 1839 the Chinese took more energetic measures to stop it, which involved them in war, and subjected them to the payment of 21 million dollars, extorted by England on behalf of the opium traders, and for the expenses of the war. The following curious extracts are from the proclamation of the Chinese commissioner, who was sent to Canton to enforce the new decrees.

"Lin, a high officer of the Chinese empire, now specially appointed an imperial envoy, a president of the board of war, and viceroy of Hoo Kwang, hereby proclaims to the foreigners of every nation, that they may thoroughly know and understand.

"Whereas ye, the said foreigners, coming to Canton to trade, have usually reaped immense profits; therefore it is that your ships, which in former years amounted annually to no more than several tens, now exceed a hundred and several tens, which arrive here every year. Your import goods, no matter what they be, with us find a consumption; and respecting the cargo which you may wish to purchase in return, there is nothing in which you may not venture. I would like to ask you, if, in the wide earth, under heaven, you can find such another profit-yielding market as this is? Our great Chinese emperor views all mankind with equal benevolence, and therefore it is, that he has thus graciously permitted you to trade, and to become, as it were, steeped to the lips in gain. If this port of Canton, however, were to be shut against you, how could you scheme to reap profit more. Moreover, our tea and rhubarb are articles which ye foreigners from afar cannot preserve your lives without; yet year by year we

12. Religion. Buddhism, or the religion of Fo, is professed by the greater part of the inhabitants.



Chinese Pagoda.

The religion of Confucius, or the doctrine of the learned, is the religion of the best educated part of the Chinese and Coreans; the emperor is himself the patriarch, and each magistrate solemnizes its rites within the limits of his jurisdiction. The learned are in general professors of this creed, without, however, entirely renouncing the forms and usages, belonging to the other modes of worship. There is a colony of Jews in China, and there are some Roman Catholics, the converts of the missionaries, formerly tolerated here. The temples of Buddha, who is called Fo in China, are filled with all manner of images, and many of the rites and ceremonies struck the Roman Catholic missionaries, from their remarkable resemblance to those of their own church. Pontiffs, patriarchs, whose spiritual jurisdiction extends over a certain province, a council of superior priests, by whom the pontiff is elected, and whose badges of dignity resemble those of the cardinals, convents, male and female, prayers for the dead, auricular confession, the intercession of saints, fasting, kissing of feet, litanies, processions, bells, and beads, and holy water, burning of incense and tapers, constitute some of the features of Buddhism in China. The

temples in China are low buildings, usually containing numerous images, and inhabited by priests and beggars; the pagodas are lofty edifices containing no images, nor tenants.

14. Government. The supreme authority is vested in the emperor, who is styled the son of heaven; the crown is hereditary in the male line. His power is limited by the rights of certain magistrates, and all officers must be appointed, according to established rules, from the learned. These form three ranks, which depend solely upon the capacity of the candidate to undergo certain examinations. There are no hereditary dignities, except that of princes of the blood, descendants of Confucius, and one or two others, but the ancestors of a person of distinguished merit are often rewarded by titles of honor for the services of their descendant.

The laws are couched in the simplest language, and promulgated with the utmost possible publicity, that none may be ignorant of them. The punishments are the bastinado, the pillory, banishment, hard labor, and death. The common punishment is the bastinado, which is inflicted by a lath of bamboo, and sometimes so severely that it occasions death. It is in constant activity and is inflicted for the smallest offence, when it is considered a paternal correction, and the culprit thanks the judge for the care thus bestowed upon his morals. The *kaingue* is a movable pillory or frame, weighing from 60 to 200 pounds, and fastened about the neck, so

allow you to export both beyond seas, without the slightest feeling of grudge on our part. Never was imperial goodness greater than this!

"Now, if ye foreigners had a proper sense of gratitude for such extraordinary goodness, ye would hold the laws in dread; and while ye sought to profit yourselves, ye would abstain from injuring other men. But how happens it, on the contrary, that ye take your uneatable opium and bring it to our central land, chousing people out of their substance, and involving their very lives in destruction? I find, that by means of this noxious article, you have been fraudulently imposing upon the Chinese people now upwards of several tens of years, during which time the unjust wealth ye have reaped exceeds all calculation; this is a circumstance sufficient to rouse the general indignation of mankind, and which the laws of heaven can with difficulty scarce pardon.

"Formerly the prohibitions of our empire might still be considered indulgent, and therefore it was, that from all our ports the sycee leaked out as the opium rushed in; now, however, the great emperor, on hearing of it, actually quivers with indignation, and before he will stay his hand the evil must be completely and entirely done away with.

"Respecting our own subjects, he who opens an opium-shop, or who sells opium, is immediately put to death;

and it is also in agitation whether or not to the mere smoker may not be accorded the extreme penalty of the law; and ye foreigners, who come to our central land to reside, ought in reason to submit to our statute, as do the natives of China themselves.

"Our Chinese empire covers many tens of thousands of miles in extent, every sort of produce is there heaped up and running over, we have no occasion to borrow any thing from you foreigners; but I fear, that were we to stop the intercourse, the plans for doing business (and obtaining profit) of every one of your countries would at that moment come to an end! Ye foreign traders, who come from distant countries, how is it, that you have not yet found out the difference between the pains of toil and the sweets of ease? The great difference betwixt the power of the few and the power of the many?

"Do not indulge in idle delay and expectation, which will only lead to a vain repentance. A special edict. Taikwang, 19th year, 2d moon, 4th day. 18th March, 1839."

"Simultaneously with the above a proclamation to the hong merchants was issued, recapitulating the frauds and evils of the opium trade, severely rebuking them for conniving at it, and for their defence of foreigners, and threatening them with death to some of their number, if they should fail in prompt and implicit obedience."

that the culprit cannot feed himself. Death is inflicted by strangulation, or beheading, and criminals are generally reserved for execution on a particular day in autumn. Torture is sometimes used to extort confession in charges of great crimes. A debtor's goods are sold to liquidate his debts, and if he has no goods he receives 30 blows for every month in which payment is delayed, so that he is often forced to sell himself as a slave to satisfy his creditor.

The subjects are divided into seven classes ; the great officers of state, called by Europeans mandarins, the military, the learned, priests, husbandmen, artisans, and merchants, several of which are subdivided into two or more ranks.

15. *Inhabitants.* The great mass of the people in China consists of the Chinese, but the ruling race, to which belongs the emperor, is the Manchoos. The Coreans, and many independent people of the interior, belong to distinct races. The complexion of the Chinese is an olive or dark brown. The hair is black ; the eyes are small and black, with the point next the nose inclining a little downwards. The forehead is wide, the cheek bones high, and the chin pointed. The dress is long and loose. The chief garment is a robe reaching almost to the ground. Over the robe is worn a girdle of silk, from which is suspended a knife in a sheath, and the two sticks which are used instead of forks. The shirts are short and wide. The trowsers are wide, and in winter they are lined with fur. In warm seasons the neck is bare. The Chinese are by no means a cleanly people, either in person or dress. They seldom wash their garments, and they carry no pocket-handkerchiefs. The hair is shaven, except a long tuft on the crown, which is plaited somewhat like a whip, and often extends below the knees. The covering for the head is generally a cap of woven cane, shaped like an inverted



Group of Chinese.

cone. No person is fully dressed without a fan. The dress of females of the common ranks differs little from that described. Their robes are long and closed at the top. An outward jacket is worn over them. Paints are universally used, though with little taste. The teeth are colored yellow or green. The nails of the higher classes are permitted to grow to several inches ; and they are kept in bamboo sheaths. The shoes of a Chinese lady are about 4 inches in length, and 2 in breadth. In infancy the feet are so closely swathed, that they cease to grow. This deformity is considered as a beauty, and so far from being able to dance, it is with the utmost difficulty a female thus mutilated can walk. The Manchoo ladies and the women of the lower classes do not compress the feet. Children are not permitted to wear silks or furs, or to have the head covered, till a certain age, when they assume the dress of men

The principal article of food is rice, which is eaten with almost every sort of victuals, but in the north corn is more used. The Manchooks eat horse-flesh, and the lower classes, who



Infantry Soldier.



Chinese Children.

are miserably poor, and often suffer from famine, do not refuse the most loathsome vermin. Tea is the usual drink, which has now become almost as common in Great Britain and the United States, as in its native country. Edible bird's nests, which consist of some sort of gelatinous matter, tripan or sea slug, shark fins, and fish maws are among the luxuries of the Chinese table; opium, though forbidden by law, is much used. Dogs, cats, and rats are eagerly sought after by the poorer classes, and puppies are constantly hawked about the streets, to be eaten.



Dog Seller.

When China was first explored by European travelers, it was believed to be a nation that had alone found out the true secret of government; where the virtues were developed by the operation of the laws. A greater familiarity with the Chinese has destroyed the delusion, and their virtues are the last subject for which they can claim any praise. Few nations, it is now agreed, have so little honor or feeling, or so much duplicity and mendacity. Their affected gravity is as far from wisdom, as their ceremonies are from politeness. The females, as in all unenlightened countries, have to suffer for the state of society; they pass a life of labor or of seclusion, the slaves rather than the companions of man.

China is known to us principally from the missionaries and the embassies. Wherever the European passes, by land or water, for the rivers have their thousands, he sees masses of people; but only of one sex, with good humor pervading the whole. He sees soldiers with paper

helmets, quilted petticoats, and fans ; he sees punishments inflicted in the streets, all the operations of trade carried on there, and signs over the shops affirming, that *they do not cheat here*, to do away the more probable supposition that they do. The government of China is one of fear, and it has produced the usual effects, duplicity and meanness. Prostration to authority is nowhere more humble than in China. Ceremony directs the life of the Chinese, and their most indifferent actions are moulded on it. Their very filial duty, which is prescribed to such an extent, as to destroy the principle, is rather a political institution than a sentiment. It gives to the parents too much authority to leave space for affection. The parents have the right to destroy or mutilate their infant children, and thousands are exposed yearly to perish in the rivers. A son is a minor during the life of his father, and liable for all the parental debts but those contracted by gaming. The government sustains in the greatest rigor all this parental

authority ; as the emperor assumes, that he is the general father, that he may exact from all, more than the obedience that is paid to a father by a son. The lash of the mandarin's whip or the bamboo is often applied in the most summary manner. Marriage in China is hardly an affair of the affections. The husband does not see his future wife till she is brought to his house, and then the Chinese laws of gallantry allow him to send her back, if, on opening the palanquin, he discovers her to be unattractive. Divorces may be had on grounds as slight as those of this rejection ; and even excessive loquacity in the females is a legal cause. The funerals are conducted with pomp, and a ceremony truly Chinese. The coffins of the rich are costly and they are often provided for years before the decease, and a poor man has been known to sell himself to slavery, that he might give his father a splendid burial. The festival in commemoration of the dead is held by members of the same family, the rich and the poor, at the expense of the former. There are many festivals, but games of chance are the common amusements. Cards and dice are always carried about. Quail fighting and locust fighting are common, and the Chinese are immoderately fond of them. The fireworks excel those of Europe. The chief festival is the feast of lan-



Mandarin's Officer.

terns, when gorgeous lanterns are everywhere displayed.

16. *Language, Literature, Arts, &c.* The language is a string of monosyllables, and these are not numerous, but their meaning is varied by different pronunciations. Thus the word *tsu*, spoken by lengthening the *u*, means *master*, when pronounced rapidly it signifies *kitchen*, and when spoken with a loud voice, and depressed toward the end, it signifies *pillar*. The language of the provinces varies, and even among the natives of the same provinces signs are used to relieve the ambiguity of words. There are not more than 350 sounds in the language, that can be distinguished by the English alphabet, and the written language has 40,000 characters, representing objects or ideas. The vocal language being so deficient to the ear, it is common, to prevent mistakes in talking, to make with the finger the sign of the character that one means to express by the word ; numerous, very different and discordant ideas have to be expressed by one sound so similar, that the difference cannot be conveyed by our alphabet.

The Chinese characters seem devised as a communication between those who are deprived of speech ; the sign is sometimes arbitrary, and at others it represents the object described. Thus a *prison* is represented by a square, denoting an inclosure ; and the addition of a dot within it, represents a *prisoner*. The character that represents a tree, used twice, denotes a thicket, and thrice, a forest. The character for time, repeated, means eternity. Some of the combinations of the characters to express other ideas are ingenious. Thus the characters combined, of *good* and *word*, make *praise*. A bargain is denoted by *word* and a *tail* ; *comfort* is expressed by *rice* and *mouth*, and *listening* by *door* and *ear*. The com-

pounds are various, and very many of them show the low estimation in which females are held in China. The character for *vicious* is composed of the sign for *woman* and *fugitive*. *Subjection* is denoted by the sign of a *woman* and a *claw*. To *scold* is expressed by the sign for *two women*. *Levity* is denoted by the character for a *man* placed between *two women*. *Anger* is expressed by the characters for *woman* and *sour wine*. Some combinations, however, are expressed in a more gallant spirit. A young unmarried damsel is expressed by the characters which denote *woman* and *bending down*, like an ear of corn. *Handsome* is denoted by the characters for a *woman* and *sigh*.

The literature of the Chinese is the richest and most important of Asia. The classical works called King are of great antiquity, and the disciples of Confucius have made them the basis of their labors in morality and politics. History has always received the attention of the Chinese, and their annals form the most complete series extant in any language. Poetry, the drama, and romantic prose fictions are among the productions of the Chinese literati, and their dictionaries, encyclopædias, commentaries, &c., are numerous; they use silk paper, printing only one side. Geography has been cultivated among them from a remote period; the imperial geography forms 260 volumes, with maps. Astronomy and mathematics have not made much progress, and medicine is practised with a variety of superstitious ceremonies. Drawing and painting are executed with mechanical skill, but without a knowledge of scientific principles. It is remarkable, that the Chinese were in possession of three of the most important inventions or discoveries of modern times, long before they were known to the nations of Europe, beside which they were the inventors of two remarkable manufactures, silk and porcelain. The art of printing was practised at least as early as the 10th century, but the use of movable types instead of blocks seems never to have occurred to this ingenious people. The knowledge of gunpowder among them dates at a very remote period, but here again they stopped short in the application of it to use, not having applied it to firearms until they learned so to do from Europeans. Finally, the peculiar directive properties of the loadstone were applied to purposes of navigation by the Chinese several centuries before they were employed in Europe.



Chinese City.

The architecture resembles that of no other nation. The houses appear fantastic, if compared with the orders that are established as standards in Europe. They are generally of wood, and mostly of but one story. They are small, and the partitions are slight, frequently only mats. The whole building is surrounded by a wall six or seven feet high. Each house contains a family of several generations. The most solid material is half-burnt brick, and the mansions of the highest as well as the lowest are formed on the model of the primitive Manchoo tents; even in the great cities, a traveler might fancy himself, from the low houses, with carved overhanging roofs, interrupted by a single chimney, and from the

pillars, poles, flags, and streamers, to be in the midst of a large encampment. The fronts of the shops are covered with varnish and gilding, and painted in brilliant colors. The external splendor of the palaces and pagodas consist merely in colored varnish and gilding.

The great wall is one of the most remarkable monuments of Chinese industry, and is one of the greatest works ever executed by man. It extends along the northern frontier for the distance of 1,500 miles, over valleys, rivers, and mountains, and has stood for 2,000 years. It consists of two brick walls at a little distance from each other, forming a sort of shell, which is filled up with earth, thus composing a solid rampart, about 15 feet thick, and varying in different places from 30 to a few feet in height. It was constructed as a defence against the nomadic warriors of central Asia. The great garden near Peking, attached to a royal summer residence, covers 60,000 acres, and is filled with artificial hills, rivers, lakes, &c., and adorned with palaces, pavilions, and every sort of decoration, that human ingenuity can devise.

The facilities for traveling are chiefly confined to the rivers and canals, and these are filled with every variety of craft. The inns are mean, and afford little but shelter. The sedan or palanquin is the common vehicle of China. Besides the dramatic exhibitions, which are some

times got up with great splendor, tumbling, wire-dancing, posture-making, feats of jugglery, ex-



Sedan Bearer.



Juggler.

hibitions of fire-works, which are much admired for their neatness, ingenuity, &c. are some of the amusements of the Chinese. Among their singular customs, may be mentioned the practice



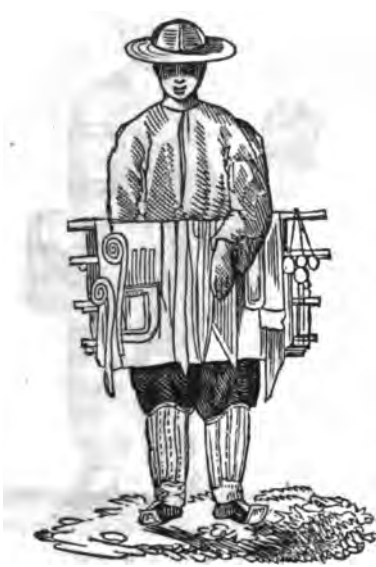
Cormorant Fishing.



Barber.

of cormorant fishing. The birds, trained for the purpose, are sent out into the water, and faithfully bring home their prey to their master. The great density of the population drives many of

the inhabitants to strange shifts for a support ; all sorts of trades may be seen carried on in the streets or the open air, where are seen the smiths, tinkers, and cobblers, with their little portable shops ; the noisy mirth of the mountebanks, conjurers, and jugglers ; the twanging noise of the



Pedler.



Itinerant Fruit-seller.

barber's tweezers, like the jarring sound of a cracked Jew's harp ; the ingenious contrivances of the pedlers, and fruit, flower, pigeon, and dog merchants to attract notice and dispose of their wares, fill the eyes and ears of a stranger with novel sights and sounds.



Fruit-seller.



Pigeon Merchant.

17. *History.* China has at different epochs formed a great number of independent States, and has been repeatedly subjected by foreign conquerors. The last event of this character was the conquest of the country by the Manchooks, in 1644 ; but the conquerors have assumed the

laws and manners of the Chinese. The name China is unknown to the natives, who call their country the Ta King empire.



Flower-seller.



Chinese Woman.

CHAPTER LXXIII. EMPIRE OF JAPAN

1. *Extent.* This empire consists of several islands in the Pacific Ocean, lying between lat. 29° and 47° N., and long. 128° and 150° E., and separated from the continent by the Sea of Japan and the channel of Tartary. It has an area of 240,000 square miles, and a population of 26,000,000 souls. The principal islands of the group are Nippon, Sikoko, Kiusiu, and Yesso or Matsmai; the southern part of Seghalien belongs to Japan, and the northern to China; some of the Kurile islands also belong to the former. The lofty mountains which intersect the principal islands, and the exposure to the sea-breezes render the climate cool. Earthquakes are common.

2. *Productions.* Rice, hemp, and silk, and the various tropical fruits are produced in abundance in the southern parts. The milky juice of the varnish trees supplies the beautiful lacker or japan; the tea-tree and bamboo are indigenous. Agriculture is carried to great perfection, and as there are few cattle or sheep, there are no meadows, and fences are not necessary. The corn fields, cotton plantations, rice grounds, and mulberry orchards are often very extensive.

3. *Towns.* Yedo, the capital, upon the Island of Nippon, is one of the largest and most populous cities in the world, having a circuit of 53 miles, and a population of 1,300,000 souls. The port is shallow, and accessible only to small vessels. The houses are constructed of bamboo, covered with mortar, and are but two stories high. Paper supplies the place of glass, and the floors are covered with matting. The palace of the emperor is nearly 15 miles in circumference and is strongly fortified; the citadel or inner fort is inhabited by the imperial family, and the outer fortress by the nobility. The hall of a hundred mats is 600 feet long and 300 wide, with the doors and cornices finely lackered, and the locks and hinges richly gilt.

Kio or Meaco was for a long time the capital, and contains the most remarkable edifices. It is also the residence of the dairi or descendant of the ancient emperors, who is the spiritual head of the empire. The dairi's palace is, in itself, a town surrounded with walls and ditches; the imperial palace is also a large building. The temple of Fokosi, paved with squares of white marble, and adorned with 96 columns of cedar, is about 1,000 feet in length, and contains a colossal statue of Buddha, 83 feet in height. The temple of Kwanwon is little inferior to the preceding; in the midst sits the goddess, with 33 hands, surrounded by crowds of subordinate deities; and innumerable statues of all sizes, and richly gilt, are placed around on

shelves; the Japanese say there are 33,333. The population is stated to amount to 500,000 Meaco is the centre of Japanese commerce and manufactures; silks, tissue, soy, and lackered wares are purchased here in their greatest perfection; and all the money of the empire is coined, and most of the books are printed here.

Nangasaki, on the island of *Kiusiu*, is the only port in which foreign vessels are suffered to come to anchor.

4. *Government.* The government of Japan is an instance of a system which has often existed in the east, as well as in some other countries. The nominal monarch termed the *Dairi*, has a religious character, and is the head of the national religion. In this way, his ancestors first attained their power. But though he still retains his name as emperor, he has lost all real authority, which is exercised by the *Kubo* or *Jogun* at the head of the troops, who has taken on himself the administration, and has the control of all civil affairs. The *Dairi*, meanwhile is kept a close prisoner, confined to his palace, which he is not permitted to leave except occasionally on a visit to some of the principal temples.

5. *Manufactures and Commerce.* The Japanese excel in working in copper, iron, and steel; their silk and cotton goods, porcelain, paper of the bark of the mulberry, lackered ware (thence called *japanned*), and glass are also made in great perfection. Their foreign commerce is inconsiderable; the Japanese are forbidden to go out of the country, and the port of *Nangasaki* is open only to the Chinese, Coreans, and Dutch, and even to them under great restrictions. The inland and coasting trade is, however, extensive; the ports are crowded with vessels, and the fairs thronged with merchants.

6. *Religion.* There are 3 forms of religion prevalent in Japan. The religion of *Sinto* is founded upon the worship of *genii*, or subordinate gods, from whom the *dairi* is supposed to be descended. The *genii* or *kami* are the souls of the virtuous, who have ascended to heaven; in their honor are erected temples, in which are placed the symbols of the deity, consisting of strips of paper, attached to a piece of wood; these symbols are also kept in the houses, and before these are offered the daily prayers to the *kamis*. The domestic chapels are also adorned with flowers and green branches; and 2 lamps, a cup of tea, and another of wine are placed before them. Some animals are also venerated, as sacred to the *kamis*. The sacrifices, offered at certain seasons, consist of rice, cakes, eggs, &c. Buddhism was introduced into Japan from *Corea*, and in many cases is so far mingled with the religion of *Sinto*, that the same temples serve for both, and accommodate the images of the *kamis*, together with those of the *Buddhist* gods. The priests of *Budda*, in Japan, are called *Bonzes*, and they are numerous, comprising both males and females. They are under a vow of celibacy, and there are here, as in other *Buddhist* countries, large convents for both sexes. The doctrine of *Confucius* has also been brought into the country, and has many followers.

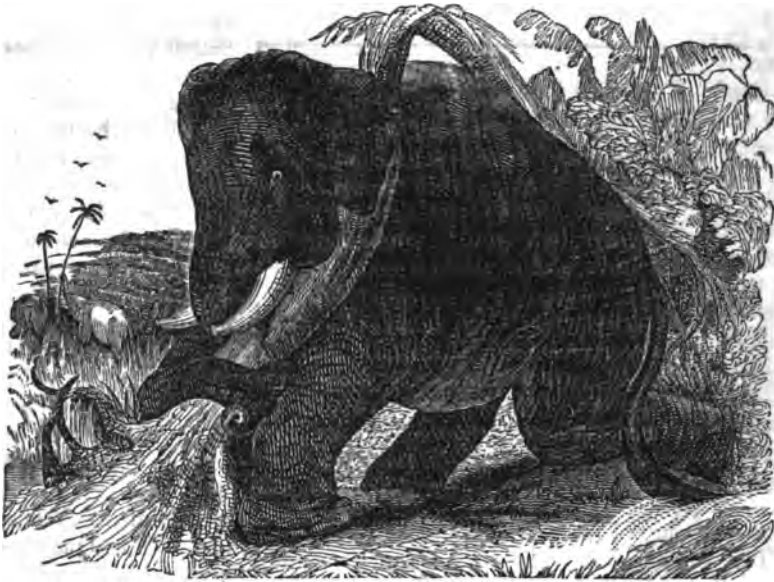


Female Bonze.

7. *Inhabitants.* The Japanese have a brown complexion, black hair, and the oblique eye, which characterizes the Chinese. They are middle sized, well formed, and active, and in character intelligent, courteous, industrious, and honest, but suspicious and vindictive. They are more cleanly than the Chinese, and more ready to adopt the improvements of other nations. Women hold a higher rank than in China; they are educated with the same care as the men, and enjoy the same degree of liberty as in European countries. Most of the arts and sciences have been borrowed from the Chinese, and in many respects the Japanese are still much behind that industrious people.

The Japanese are a religious people, and their religion deals much in festivals, of which they have 5 great annual ones, besides 3 smaller monthly ones, celebrated rather with noisy mirth and revels, than with religious observances. Pilgrimage is the custom to which they are most strongly addicted, and which they practise with the greatest zeal. The roads in summer are thronged with crowds of devotees on their way to some sacred spot. *Ise*, the grand temple of the chief of the celestial spirits, is the most holy of those venerated shrines

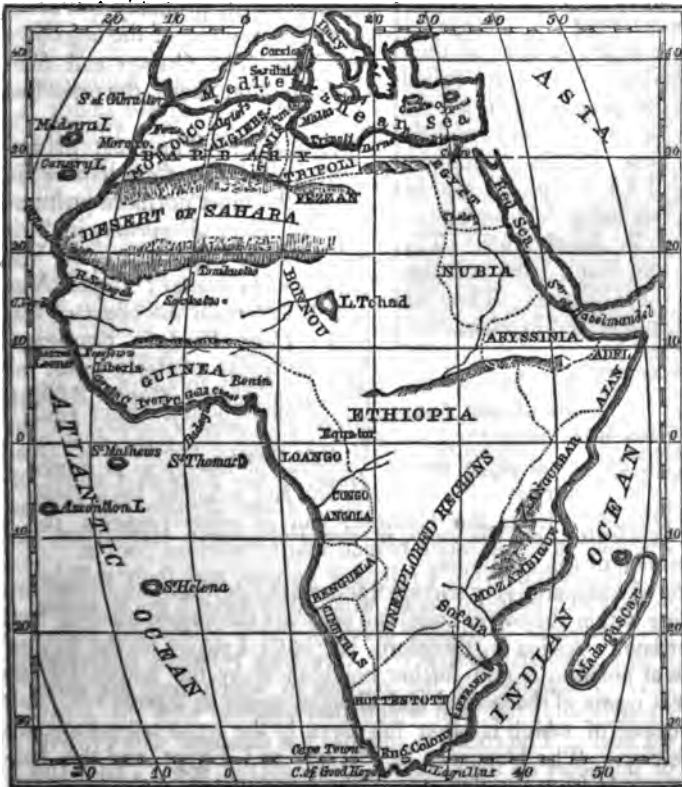
CHAPTER LXXIV. GENERAL VIEW OF AFRICA.



1. *Boundaries and Extent.* Africa is a vast peninsula joined to the Asiatic continent on the northeast, by the narrow isthmus of Suez. It is bounded north by the Mediterranean Sea, east by the Red Sea and Indian Ocean; south by the Southern Ocean, and west by the Atlantic Ocean. It extends from 38° N. to 35° S. latitude, and from 17° W. to 51° E. longitude;

greatest length, from Cape Blanc, in Tunis, to Cape Agulhas, 5,000 miles; greatest breadth from Cape Verd to Cape Guardafui, 4,600 miles; area, 11,500,000 square miles, population, 60,000,000. From about 5° north to 25° south, the interior of this country, comprising a tract of about 3 millions square miles, is wholly unknown, and with much of the remainder we are imperfectly acquainted.

2. *Mountains.* Our ignorance of this vast division of the globe renders it impossible to describe these great natural features with any accuracy. But Africa seems to have neither the lofty mountain chains nor the magnificent rivers of Asia and America. In general, the African mountains appear to be more remarkable for breadth than height. In the north is the Atlas range, rising in some places to the height of above 12,000 feet. The Kong Moun-



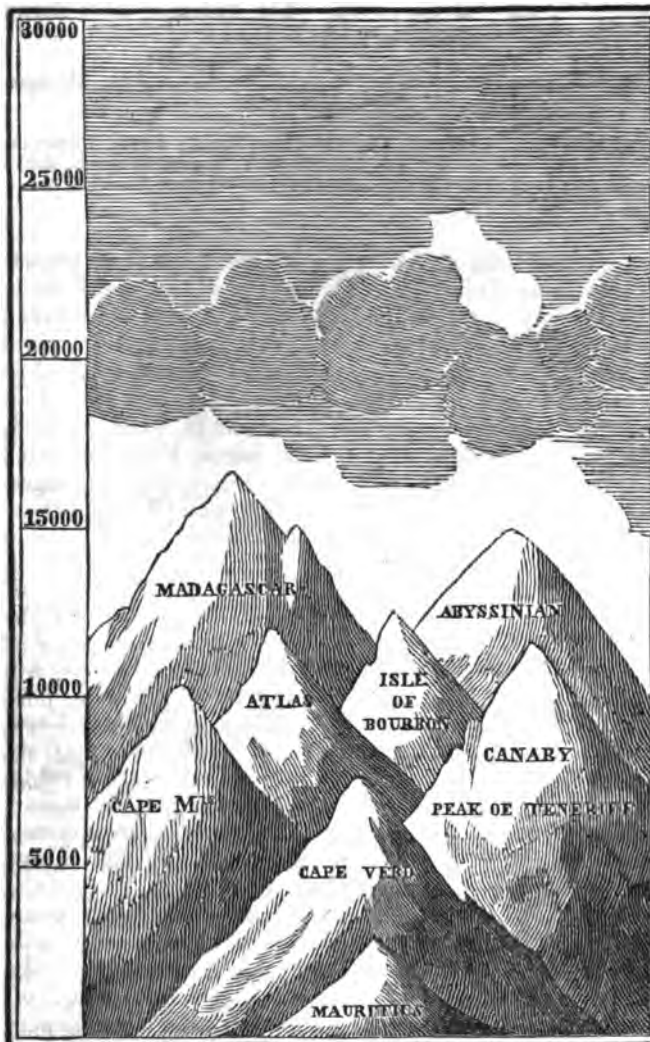
Map of Africa. 60

ains extend along the western limits of Senegambia and the northern border of Guinea, and in general have no great elevation, although some of their summits appear to reach the height of 12,000 or 13,000 feet. The *Abyssinian Mountains*, at some points, are of about the

same elevation, but their continuation across the continent under the name of *Mountains of the Moon* is merely conjectural. Along the eastern coast, a continued chain extends from the Abyssinian range to the *Table mountain*, but of no great height. It seems not improbable, that the central part of the continent forms one great plateau, of which these littoral chains are merely the steep sides, descending seaward.

3. *Rivers.* We are not acquainted with the whole course of the largest rivers of Africa. The sources of the principal branch of the *Nile* are yet uncertain. The *Quorra* or *Niger* is known to us only in the upper and lower part of its course. The *Congo* or *Zaire* is evidently a large river, of which but a small part has been visited, and the *Zambeze* or *Couama*, on the eastern coast, probably traverses extensive regions of the unknown interior. The *Orange* and *Senegal* are, after these, the principal rivers.

4. *Capes.* The most prominent capes are *Cape Blanc*, in Tunis, the most northern point of Africa; *Cape Mesurata*, in Tripoli; *Cape Spartel*, upon the Straits of Gibraltar; *Capes Mesurado* and *Palmas*, on the Guinea coast; the *Cape of Good Hope*, in the English Cape Colony; *Cape Agulhas*, the most



Comparative Height of the Mountains of Africa.

Mauritius,	3,764 feet.	Atlas,	12,000 feet.
Cape Verd,	7,890 "	Isle of Bourbon,	12,500 "
Cape,	10,200 "	Abyssinian,	14,720 "
Canary, Peak of Teneriffe,	11,890 "	Madagascar,	16,500 "

southern point of Africa; *Capes Corrientes* and *Delgado*, in the Portuguese territories, and *Cape Guardafui*, the eastern extremity of the continent.

5. *Climate.* With the exception of comparatively narrow tracts on the northern and southern coast, the whole of this continent lies within the torrid zone, and presents the largest mass of land within the tropics on the earth's surface. Africa is, therefore, the hottest region on the face of the globe. The effect of its tropical position is still further heightened by the nature of the soil and the surface; the vast desert tracts of bare sand and shingle, serve as a great reservoir of parched and heated air, the influence of which is often felt even in the more temperate regions of Barbary and the Cape Colony. The khamseen in Barbary and Egypt, and the harmattan in Guinea, are dry, burning winds from the deserts. The low country on the seacoast,

and in the river valleys throughout the tropical regions, is destructive to Europeans ; the great heat and the exhalations of the swampy soil, covered by an exuberant vegetation, generating fatal diseases.

6. *Minerals.* Little is known of the mineral productions of Africa. Salt is abundant, except in Nigritia, and gold dust is found in many of the rivers. The following table shows some of the most important minerals, with their localities, as far as is known.

GOLD. Central Nigritia (Mandingo, Housa, Wangara); Guinea coast; Mozambique coast; Abyssinia, &c.

SILVER. Mines of Chicova on the Zambezi river; Elala in Morocco; Nigritia (Begarmeh, Teembo.)

COPPER. Morocco; Nigritia (Moloos, Darfur, &c.); Egypt, Cordovan, &c.; Cape Colony; Zumbo, Cazembas, &c.

IRON. Egypt, Abyssinia, Darfur, Algiers, Madagascar, Cazembas, Nigritia.

TIN and LEAD. Loango.

SALT. Barbary (Morocco, Tunis); Egypt, Cordovan, and Abyssinia; Nigritia (Angola, Benguela, &c.); Cape of Good Hope, Madagascar, Canaries, &c.

7. *Vegetable Productions.* The northern regions of Africa present much the same vegetation as the southern parts of Europe, with some distinguishing features, however, that forbode the transition to the tropics. On the Barbary coast we find groves of orange and olives; wide fields of wheat and barley; thick woods of evergreen oaks, cork trees, and sea pines (*Pinus maritima*), intermixed with cypresses, myrtles, and tree heaths (*Erica arborea*), while palmetto trees and wild capers cover the hills and rocks. The principal objects of culture in the Barbary States are a species of wheat (*Triticum durum*), the culm of which is solid, and the kernel horny, rather than farinaceous; barley, used for the horses instead of oats; maize and caffre-corn (*Holcus sorgium*), rice, tobacco; figs, pomegranates, jujubes, sugarcane, &c. In the mountainous tracts to the south grows the sandarach tree (*Thuya articulata*) whose durable wood is used in the construction of mosques, and is supposed by some to be the shittim wood of Scripture. The borders of the great desert and the oases yield the date-palm, affording the chief sustenance of the inhabitants. Egypt produces the vegetation of both these regions, with the acacias (*A. nilotica*), which yield the gum arabic, tamarisks, the senna (*Cassia obtusifolia*), the doom palm (*Crucifera Thebaica*), the cardamoms, castor-oil plant (*Ricinus*); safflower (*Carthamus tinctorius*), yielding an esteemed dye; the papyrus (*P. antiquorum*), from which the old Egyptians made their material for writing; the lotus (*Zizyphus lotos*), of which the ancients related many fables, &c., in the equinoctial regions exhibit new forms of vegetation. The huge baobab (*Adansonia*), the fruit of which affords the natives a grateful drink, the cotton tree (*Bombax pentandrum*), groups of oil palms (*Elais guineensis*), sago palms (*Sagus rapha*), the grotesque chandelier tree (*Pandanus candelabrum*), with its long, rigid, channelled leaves, &c., are among the characteristic productions of the tropical countries. The cassava (*Iatropa manihot*), yam (*Dioscorea*), pigeon pea (*Cytisus cajan*), and ground-nut (*Arachis hypogæa*), are the farinaceous plants which supply the place of the cereal grains of temperate climates; the papaw (*Carica papaya*), the tamarind, Senegal custard-apple (*Anona Senegalensis*), the doura tree (*Parhia Africana*), the musanga, cream fruit, monkey apple, mammee apple, &c., are among the useful trees. In the vast karroos of Southern Africa, there are few plants that rise to the dignity of trees, but various

succulent plants, euphorbias, carrion flowers (*stapelieæ*), aloes, fig marigolds (*mesembryan themum*), orchidæ, &c.), with numberless species of heath, geraniums, cycadæ, &c., usurp the place of forests.

8. *Deserts.* The *Desert of Zahara* occupies a great part of Northern Africa, extending from Egypt to the Atlantic. The *Great Southern Desert* is supposed to occupy most of the interior to the south. These deserts form a prominent feature of the country; no other portion of the globe exhibits anything comparable to them. They are oceans of sand under a burning sky. No cooling breezes freshen the air; the sun descends in overpower-

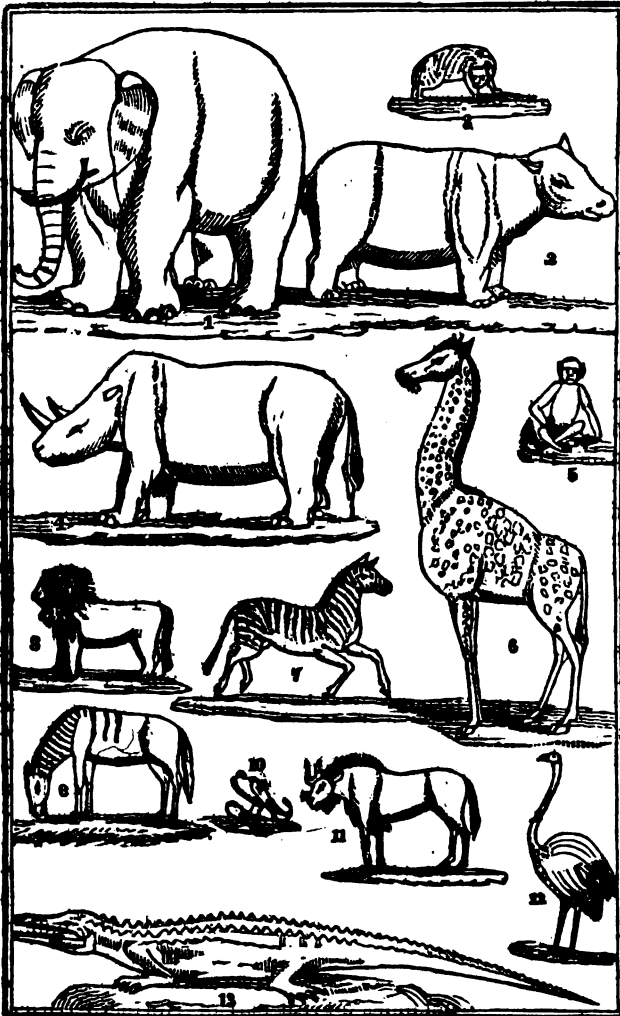


Traveling in the Desert.

ing force; the winds scorch as they pass, and bring with them billows of sand which some-

times swallow up whole caravans and armies, and suffocate them in their pathless depths. A singular phenomenon which these deserts exhibit is the *Mirage*, an optical deception produced by the powerful rays of the sun upon the broad surface of sand, which often cheats the eye of the thirsty traveler with the image of a lake of water in the midst of the desert. In Egypt it is not uncommon to see the towers and minarets of a city reflected by the mirage upon the plain before it, with such distinctness, that the spectator finds it impossible not to believe it a wide sheet of water spread before his eyes, rather than a dry expanse of sand.

9. *Animals.* The animal kingdom of Africa has not been thoroughly explored, yet it is known to abound in species which are either remarkable for their magnitude or their singular qualities. We shall only attempt to describe a few of them.

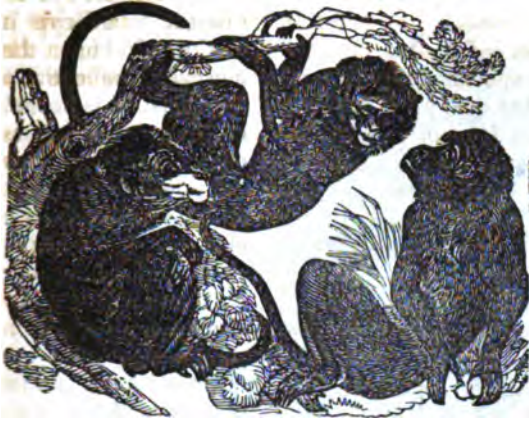


Comparative Size of Animals of Africa.

1. Elephant.
2. Hippopotamus.
3. Hyena.
4. Two Horned Rhinoceros.
5. Chimpanzee.
6. Camelopard.
7. Zebra.
8. Lion.
9. Quagga.
10. Secretary Vulture.
11. Gnu.
12. Ostrich.
13. Crocodile.

The *Chimpanzee* or *Pongo* (*Pitheca troglodytes*) lives in Guinea and Congo, where it is found in troops. It constructs huts of leaves and branches of trees, arms itself with stones and clubs, and employs them to repulse from its dwelling both men and elephants. It approaches the human form more nearly than any other animal. Naturalists have constantly confounded it with the orang outang; but it can walk upright, which that animal cannot do. It is said by travelers to exceed the human stature. The *Magot* or *Barbary Ape* (*Macacus sylvanus*), abounds in Barbary and in other parts of Africa. The *Baboon* (*Cynocephalus*) is almost wholly confined to Africa, where there are several species inhabiting all the mountain

ranges from the Atlas to the Cape Mountains. Many of them attain a large stature, and from their strength and malicious disposition are much dreaded by the negroes. The *Mandrill*



Monkeys.



Baboons.

(*C. Mormon*) is the largest and reaches the height of five feet ; they are morose and savage, but have been kept in a domestic state, and are as fond of their pipe and mug of beer, as the most inveterate smoker and toper of the human species. The *Chacma* (*C. porcarius*) of the Cape of Good Hope, the *Derrias* or *Tartarin* (*C. hamadryas*) of Abyssinia, the *Common Baboon* (*C. papio*) of Guinea, the *Drill* (*C. leucophaeus*), and perhaps some other species are found in this continent.



Chacma or Pig-Faced Baboon.

The true monkeys (*cercopithec*i) swarm over the whole continent, enlivening the woods with their gambols and chattering. The *Patas*, *Mangabey*, *Mona*, *Green Monkey*, and *Mustache* are inoffensive and playful, and one or two of them rather good looking. Many beautiful species of *Lemura*, are found in Madagascar, of different colors,



Lemurs.

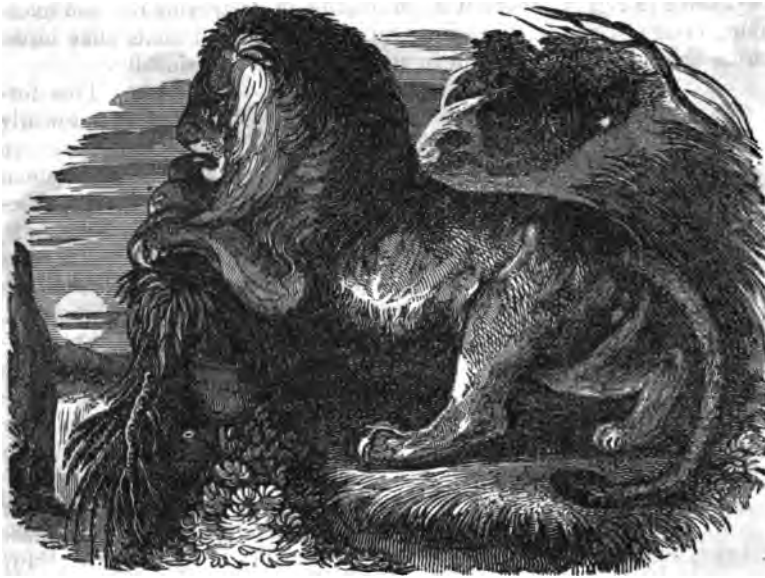


Red Lemur.

The *African Lion* (*Leo Africanus*) from his great strength and fierceness is placed at the head of the beasts of prey. His roar is said to be tremendous, and when in the act of seizing

his prey, this roar is heightened into a scream. The mode of his attack is generally by surprise. Approaching slowly and silently till within a leap of his prey, the lion springs with a

force which is generally thought to deprive its victim of life. His muscular strength is such, that he is capable of carrying off a horse or a buffalo, and by the power of his limbs alone, he is said to be able to break the spine of a horse. Fortunately, however, the lion seems to derive no gratification from the destruction of animal life, beyond the mere cravings of appetite. In confinement, he shows unequivocal marks of gratitude and affection to the person who serves him with food; of this, several instances are on record.



The African Lion.

Of the *Cape Lion* (*L. Meliceps*) there are two varieties, which, from the tint of their coats, and particularly of their manes, are designated by the settlers as the Pale and the Black Mained Lion. The latter of these is the larger and more ferocious of the two, and occasionally is found of the enormous length of eight feet from the tip of the nose to the origin of the tail. The tail is usually about half the length of the body. The pale variety is the more common.



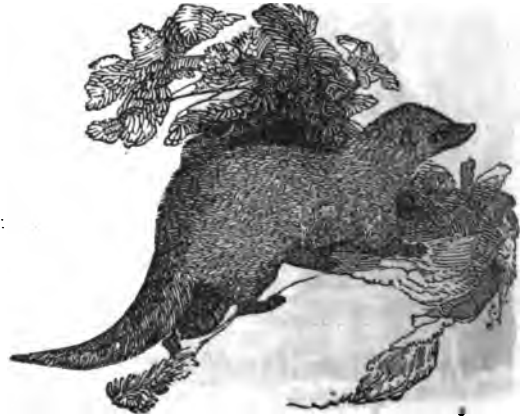
The Jackal.

The *Jackal* (*Canis aureus*) inhabits the southern parts of Africa. Its voice is like that of the wolf, but it is more voracious. It never stirs alone, but always hunts its prey in packs of thirty or forty by night. It attacks almost every kind of beast or bird, and often feeds on the carcasses of men and animals.

The *Fennec* (*C. Zerba*) is a curious animal, first made known to naturalists by Bruce;



The Fennec.



The Lemmings.

and Denham and Clapperton brought home a skin from Central Africa. Bruce describes it as of a dirty-white color, and about 10 inches long. During the day, it was inclined to sleep, but was exceedingly unquiet as night came on. It builds its nest on trees. The *Ichneumon* (*Mastomys Ichneumon*), is domesticated in Egypt, where it is serviceable in destroying rats and mice. It attacks almost every living creature, and feeds entirely on animal flesh; it hunts alike birds, quadrupeds, serpents, lizards, and insects. It is said to swim and dive occasionally.



The Leopard.

The Leopard (*Felis leopardus*). This formidable and sanguinary animal, is found nearly throughout the whole of Africa, and in eastern and southern Asia. He usually measures about 3 feet in length, exclusive of the tail, but sometimes reaches 4 feet. His appearance indicates his natural disposition. He has a restless eye and a sinister countenance, and all his motions are hasty and abrupt. In rapidity, agility, and precision of motion, he is unrivalled by any other animal; an advantage which he owes to the strength of his muscles, the suppleness of his joints, the extreme pliability of his spine, the greater lateral compression of his body, and the slender proportions of his limbs. His prey, on which he darts from his hiding-place, and even pursues up the trees,

consists of antelopes, monkeys, and the smaller quadrupeds. Usually, he shuns man; but, when closely pressed, he turns upon the hunter, and hunger will drive him to attack, though by stealth, the human race.



F. caracal.

The *Caracal* or *Siya Gush* (*F. caracal*) is larger than the fox, and is remarkably fierce and strong. He generally feeds on what is left by the lion, but sometimes attacks and devours hares, rabbits, and birds. The *Booted Lynx* (*F. caligata*), and *Serval* (*F. serval*), are found in different parts of Africa. The *Tiger Cat* of Africa or *Cape Cat* (*F. capensis*). This beautiful animal was erroneously supposed, by Buffon, to be the same as the Serval of India; but we have recently seen a living specimen in Boston, from which the accompanying accurate likeness was taken, and which enables us to testify to the accuracy of the following description from Shaw. "This animal is extremely brilliant in color, it

being of the brightest fulvous yellow, with jet black stripes and spots; the chin, throat, and breast, pale ash color; along the back are black stripes; on the sides of the neck, and on the breast, numerous small crescent-shaped spots, pointing upwards; on the legs, numerous roundish spots; and the tail very strongly and distinctly annulated with black and yellow."

The specimen of the Cape Cat to which we have referred, was certainly one of the most beautiful animals we have ever seen. Its motions were exceed



African Cat.



Hyena Dog.

ingly quick and graceful, and its countenance mild, lively, and pleasing. Its form was very slender; the head and body not being larger than those of a domestic cat; yet its height and length were nearly twice as great.

The *Hyæna Dog* (*Hyæna venatica*) is a native of southern Africa, and is exceedingly fierce, swift, and active. It hunts in packs, chiefly at night. It is smaller than the wolf, and is completely untameable. The *African Blood-hound* is used, in Africa, for tracking an enemy to his retreat, and also for hunting the gazelle, in which it displays infinite skill. It is very elegant in its form.



African Blood-hound.



Striped Hyæna.

The *Striped Hyæna* (*H. villosa*) is a native of Barbary, Egypt, Abyssinia, Nubia, Syria, Persia, and the East Indies. It generally resides in the caverns of mountains, in the clefts of rocks, or in dens, which it has formed for itself, under the earth. It lives by depredation, like the wolf; but it is a stronger animal, and seemingly more daring. It sometimes attacks man, carries off cattle, follows the flocks, breaks open the sheep-cotes by night, and ravages with a ferocity insatiable. By night, also, its eyes shine; and it is maintained, that it sees better than in the day. If we may credit all the naturalists who have treated of this animal, its cry is very peculiar, beginning with something like the moaning of a human being, and ending in a sound which resembles the sobs or retchings of a man in a violent fit of vomiting; but according to Kæmpfer, who was an earwitness of the fact, it sounds like the lowing of a calf. When at a loss for other prey, it scrapes up the earth with its feet, and devours the carcasses, both of animals and men, which, in the countries that it inhabits, are interred promiscuously in the fields.

The *Spotted Hyæna* (*H. crocuta*) is a native of Southern Africa, and abounds in the neighborhood of the Cape of Good Hope, where it is called the Tiger Wolf. It is somewhat inferior in size to the Striped Hyæna, but, in its wild state, has the same manners and propensities.



Spotted Hyæna.

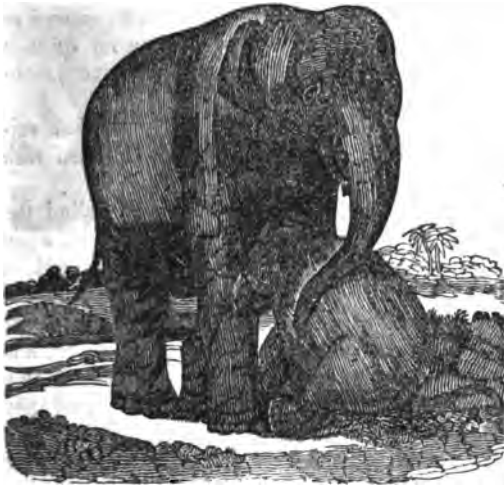


Zebra.

The *Zebra* (*Equus Zebra*) is, perhaps, the handsomest and most elegantly clothed, of all

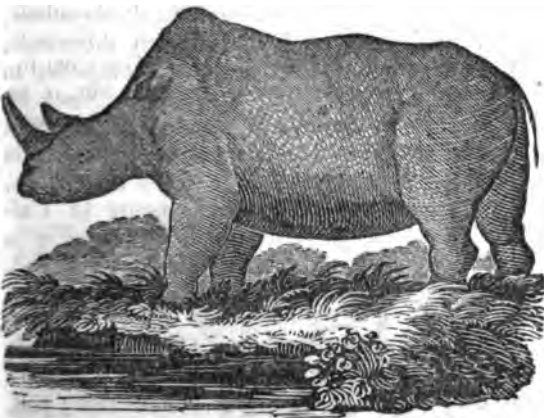
quadrupeds. He has the shape and graces of the horse, the swiftness of the stag, and a striped robe of black and white, alternately disposed with so much regularity and symmetry, that it seems as if nature had made use of the rule and compass to paint it. These alternate bands of black and white are so much the more singular, as they are straight, parallel, and very exactly divided, like a striped stuff; and as they, in other parts, extend themselves not only over the body, but over the head, the thighs, the legs, and even the ears and the tail; so that, at a distance, this animal appears as if it was surrounded with little fillets, which some person had disposed, in a regular manner, over every part of the body. In the females, these bands are alternately black and white; in the male, they are brown and yellow, but always of a lively and brilliant mixture, upon a short, fine, and thick hair; the lustre of which, still more increases the beauty of the colors. The dow, and the quagga, are distinct species of this genus.

The *African Elephant* (*Elephas Africanus*) is a distinct species from the Asiatic. The elephant is the most sagacious of all animals, and the most easily tamed; and yet the indolent inhabitants of Africa have never converted this noble quadruped to any useful purpose. Herds of elephants are frequently met with in the middle regions of Africa. They are fond of rivers, deep valleys, shady places, and marshy grounds. It cannot subsist long without water, with which they often fill their trunks, and sprinkle it about for amusement. They suffer equally from excessive heat or cold, and penetrate the thickest forests, to avoid the burning rays of the sun. Notwithstanding their unwieldy figure and great size, they walk so fast, that they can easily overtake a man running. Their common food is roots, herbs, leaves, and young branches; they dislike flesh or fish. As they go in large herds, and need a great quantity of fodder, they often change their places, and when they find culti-



African Elephant.

vated lands, they make prodigious waste; their bodies being of an enormous weight, they destroy 10 times more with their feet than they consume for their food, which may be reckoned at the rate of 150 pounds of grass daily. These animals are more numerous in Africa than in Asia, and they are of a different species, not being so large, and being less wild, than the Asiatic elephant. The latter, also, is distinguished from the African species, by having 5 toes on each foot, instead of 3.



Two-horned Rhinoceros.

Two species of the *two-horned Rhinoceros* (*R. Africanus* and *Burchelli*) are found in South Africa. The horn of the female is, however, much longer and more slender than that of the male; being sometimes $3\frac{1}{2}$ feet long. Being a strong, ponderous, and elastic substance, it is much prized by the natives, for handles to their battle-axes. The secondary horn is, in many instances, so small as to be scarcely perceptible at a little distance. The general figure of the Rhinoceros, is that of an enormous hog. His prodigious size and strength, and his destructive horn, seem to point out this animal, as the real unicorn of Scripture.

The *Hippopotamus* (*H. amphibius*) is about 6 feet 9 inches long, from the extremity of the muzzle to the beginning of the tail; 15 feet in circumference, and $6\frac{1}{2}$ feet in height. He swims quicker than he runs,

pursues the fish, and makes them his prey. Three or four of them are often seen at the



Hippopotamus.

The *Engallo* or *African Wild Boar* (*Phascochoeros*) is, perhaps, the most hideous of all animals; its tusks are curved upwards, towards the forehead. When attacked, it will often rush upon its assailant with great fury, and often inflicts fatal wounds.

The *Springer* (*Antelope euchore*) inhabits the Cape of Good Hope, and is there called the



Springer.

spring bok, from the prodigious leaps it takes, when any person suddenly appears; when thus alarmed, it has the power of extending the white space about the tail, into the form of a circle, which returns to its linear form when the animal is tranquil. When pursued, it is pleasing and curious to see the whole herd leaping to a considerable height over each others' heads; and they will sometimes take 3 or 4 leaps successively. In this situation, they seem suspended in the air, looking over their shoulders at their pursuers, and forming the radius of the white part about the tail, in a most beautiful manner. They are extremely swift, and it must be a good horse that can overtake them. They migrate annually, from the interior of the country, in small herds, and continue near the Cape for 2 or 3 months, and then retreat towards the north, in herds of many thousands,

covering the great plains for several hours in their passage.

They are attended, in these migrations, by numbers of lions, hyenas, and other wild beasts of prey, which commit great devastation among them. They also make periodical migrations, in 7 or 8 years, in herds of many thousands, from the north; being, probably, compelled to leave their haunts in the *Terra de Natal*, by the excessive drought of that region, where it sometimes happens, that not a drop of rain falls for 2 or 3 years. In these migrations, they spread over the whole country of *Calfraria*, which they desolate, not leaving a blade of grass. Their flesh is excellent, and, with other antelopes, they furnish the venison of the Cape.



Common Antelope.

The *Common Antelope*. Of this numerous tribe of animals, there is, perhaps, no species so truly elegant in its appearance, as this; and, although it is one of the commonest, yet its habits are but little known. It is very numer-

ous in Barbary, and in all the northern parts of Africa. In size, it is rather smaller than the fallow-deer.

There are many species of Antelope in Africa, among which are the *Harnessed Antelope*, so called from the markings on his skin; the *Striped Antelope*; the *Wood Antelope*; the *Blue Antelope*; the *Elk Antelope*; the *Barbary Antelope*; the *Flat-horned Antelope*; the *White-faced Antelope*; the *Gambian Antelope*; the *Gemsbock*; the *Swift, Red, Senegal, Bezoar*,



Gemsbock.



Harnessed Antelope.

African, Guinea, Eland, Cherrotain, and Corine Antelopes. The *Hart Beast* is found in vast herds, often amounting to many thousands. Multitudes of the various kinds of antelope fall a prey to the lion, leopard, and panther.

The *Gau* (*A. Gnu*) is one of the swiftest beasts that range the plains of Africa. Though



The Gnu.

a small animal, it appears of considerable size when prancing over the plains. It possesses, in an eminent degree, strength, swiftness, weapons of defence, acute scent, and quick sight.

The *Camelopard* (*Camelopardalis antiquorum*), or *Giraffe*, is one of the tallest, most beautiful, and most harmless animals in nature. The enormous disproportion of its legs is a great obstacle to the use of its strength; its motion is waddling and stiff; it can neither fly from its enemies in its free state, nor serve its master in a domestic one. Several have been carried to Europe. One was sent as a present to the king of England by the Pacha of Egypt, and arrived there in 1827. Several of the southern giraffes (*C. australis*) have recently been exhibited in this country. (See cut on next page.)

Two or three species of *Buffalo* inhabit the woods and marshy grounds, but little is known of their forms or habits. The *Wild Buffalo of the Cape* (*Bos caffer*) has the base of the



Camelopard. See p. 821.

of this, it has often overturned a canoe. There is no animal but man, that can combat it with success. The *Land Crocodile* is found in Egypt. It is not a dangerous animal, and is only 5 feet long.

Lizards, serpents, and other reptiles abound in every part of Africa. The enormous *Python*, a serpent of 30 feet long, lurks in the fens and morasses, and the *Chameleon* (*Chamaeleo*

horns extending all over the top of the head and forehead, like a helmet; he is a savage and dangerous animal.

The *Ratel* (*Mellivora capensis*), nearly allied to the gluttons or wolverenes, is found in Southern Africa, and has long been noted for his dexterity in robbing the hives of wild bees, being extravagantly fond of honey. In his search, he is said to be aided, like man, by the *Honey-guide* (*Indicator Sparmanni*), a bird which is equally fond of this luscious food. The note of the bird, well-known to the Hottentots, and it should seem, to the *Ratel*, is peculiarly shrill at the feeding season, and it flits along, by short flights, before its companion in the chase, until it arrives at the place where the sweet store is hoarded up; here it redoubles its cries, and flutters round the spot, until the hive is taken and destroyed, when it comes in for a share of the booty.

The *Common Crocodile* is from 20 to 30 feet long, of a blackish brown color, above and yellowish white beneath. It inhabits the rivers of Africa. It is supposed to live to a great age. Its strength is very great, and its arms irresistible. Its principal instrument of destruction is the tail, with a single blow



Ratel.



Crocodile.

vulgaris), may be seen on every hedge or shrub. Among the venomous species, the *Dipsos*, the *Asp* (*Vipera haja*), and the *Cerastes* or *Horned Viper*, are often mentioned by the poets, and the *Garner Snake* and others are employed by the Bosjesmans to poison their arrows. Of the insects, Africa also contains many thousand kinds. The *Locust* has been, from time immemorial, the proverbial scourge of the continent; *Scorpions*, scarcely less to be dreaded than

noxious serpents, are everywhere abundant ; and the *Zebab*, or *Fly*, one of the instruments



Ants' Nests.

employed by the Almighty to punish the Egyptians of old, is still the plague of the low districts. The myriads of ants which swarm in Western Africa can scarcely be conceived by those who have not visited those countries. The nests of the *White Ants* (*Termites*), which are peculiar to this region, form a singular feature in the scenery, rising from the plains in the shape of sugar-loaves to such a height as to appear like villages of the natives. Those of one species (*T. arda*) are cylindrical, nearly 3 feet high, the top terminated by a round, vaulted dome, and surrounded by a prominent terrace, the whole not unlike the shape of a mushroom. Two species of the edentulous mammals, which feed upon ants, are also found here, adding one to the other thousand instances of design and arrangement which pervades the order of nature. These are the *Lardvark* (*Orycteropus Capensis*), and the *Long-tailed Manis* (*Manis Africanus*), the latter of which is destitute of teeth, but is covered with a thick mail of hard scales.

10. *Birds.* The *Ostrich* (*Struthio camelus*) is a native of the torrid regions of Africa. It



Ostriches.

is generally considered as the largest of birds, but its great size, and the shortness of its wings, deprives it of the power of flying. The weight of this bird may be estimated at 75 or 80 pounds. It inhabits the most solitary and arid deserts, where there are few vegetables, and where the rain never comes to refresh the earth. It is said that the ostrich never drinks ; but it is of all animals the most voracious, devouring leather, glass, iron, stones, or anything that it can get. The savage nations of Africa hunt them not only for their plumage, but for their flesh, which they consider a great dainty.

The *Bustard* (*Otis*) is similar to the ostrich in many of its habits, and even somewhat in appearance ; several species inhabit the karroos and arid plains of Africa. Of gallinaceous birds adapted to the poultry-yard, there are few ; but the genus of *Guinea Hens* (*Numida*) is peculiar to Africa, and is common in our barn-yards. There are three or four distinct species, and they are found in large flocks of 300 or 500. There are also several species of grouse and partridges. Innumerable varieties of parrots and parrots swarm in all the forests, which resound with their hoarse screams.

The *Bearded Griffin*, or *Lammer Geyer*, (*Gypatus barbatus*), is found in the mountains of Egypt and Abyssinia, occupying the loftiest and most inaccessible cliffs, and frequently committing dreadful ravages in the neighboring plains. It seizes by preference on living victims, chiefly quadrupeds ; such as rabbits, hares, sheep, and lambs.

The *Golden Vulture* (*Perenopterus*) is abundant in Egypt and other parts of Africa, where it is of singular service in devouring all sorts of filth and carrion. The *Griffin Vulture* (*Vul*

ser. fatus) is found in all parts of Africa, and feeds, like others of its tribe, on dead carcases. The *Egyptian Vulture* is very useful in destroying rats and mice.

The *Secretary Vulture* (*Gypogeryx serpentarius*) is styled by the Hottentots the serpent-eater, from the avidity with which it catches and devours those noxious reptiles. It may be easily tamed. The *Sociable Vulture* (*V. auricularis*) is of gigantic size, and is very numerous



Secretary Vulture.



Sociable Vultures.

in the interior of Africa. In dimensions, it is full equal to the Condor. Like all other vultures, this is a bird of the mountains, the sheltered retreats formed by their caves and fissures constituting its proper habitation. In them it passes the night, and reposes, after it has sated its appetite, during the day. At sunrise, large bands are seen perched on the rocks at the entrance of their abodes, and sometimes a continued chain of mountains exhibits them dispersed throughout the greater part of its extent. Their tails are always worn down by friction against the stones, between which they thrust themselves, or on which they perch.

The *Dodo*, formerly an inhabitant of Mauritius, is now extinct. The *Crowned Crane* (*Ba-*



Dodo.



Crowned Cranes.

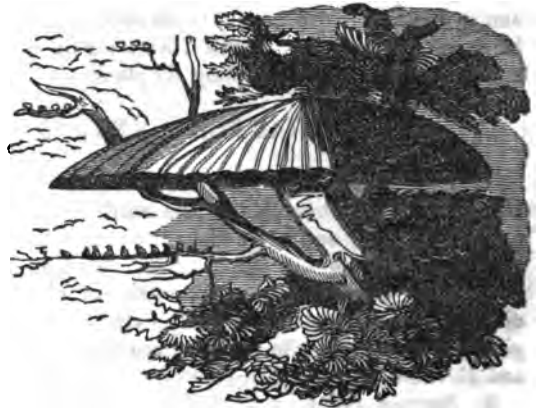
leucica pavonina) is a very splendid species, inhabiting swampy places in Guinea. Like other cranes, it subsists on grain and insects, and at Cape Verd it is so tame as often to come, of its own

accord, into the poultry yard, and feed with the domestic fowls. It walks with a slow and stately gait, but, with the aid of its extended wings, is able to scud along with great rapidity. Its voice is loud and sonorous ; in captivity, it is gentle and familiar.

The *Egyptian Ibis* (*Ibis religiosa*) is found in Lower Egypt, in places just freed from the inundations of the Nile, where it is of great service in destroying insects, reptiles, &c. It is frequently found in the sepulchres with the mummies, and was formerly held sacred by the Egyptians. The *Sociable Grosbeak* (*Ploceus socius*), or *Weaver Bird*, of Southern Africa,



Egyptian Ibis.



Sociable Weavers.

lives in communities of several hundreds. The *Whidah Bird*, or *Widow Bird*, (*Vidua paradisæa*,) is a beautiful bird, of a closely allied genus, which is found on the Western Coast. It is rare ; but, in captivity, is lively and active ; it changes its plumage twice a year. There are many other birds in Africa which are worthy of notice, but our space will not permit a description of them here.



Whidah Bird.

11. *Inhabitants.* The Arabs and Moors, who are now scattered all over the northern parts of Africa, are of Asiatic origin. But there are, at least, four great families of nations, strongly marked by physical peculiarities, that appear to be natives of the African continent. These are the *Berbers*, in the north ; the *Negroes*, in the centre ; and the *Hottentots* and *Caffres*, in the south and east. Although the northeastern part of Africa, or the Nile valley, was once inhabited by civilized nations, who had carried the arts and sciences to a high degree of improve-

ment, and the northern coasts were, at subsequent periods, settled by numerous Phœnician, Greek, and Roman colonies, and still later have been the seat of refined and polished Arab States, yet the great mass of this continent has remained a stranger to the arts of improved life. The natives nowhere have the art of writing ; no alphabet is found among them, and there is nothing to indicate, that they have reached beyond some of the simplest useful arts. To the *Berber* race, belong the *Shilloos*, *Kabyls*, *Tuaries*, *Surhas*, *Tibboos*, &c., of the Atlas mountains, and the regions to the south and east. There is a great diversity, however, among the

nations referred to this race. The light-colored nations in the upper valley of the Nile are, by some, referred to this, and by others to a distinct race; the Nubians, Abyssinians, Gallas, Ababdehs, Shihos, &c., are of this number. The Foulahs, Fellatahs, or Poulis, are by some included among the negro races, and by some considered as quite distinct, both from them and from the Berbers.

The negroes are physically characterized by woolly hair, black skin, projecting lips, flattened nose, low and retreating forehead, and the form of the legs. Morally, they are indolent, careless, easy, and friendly in their disposition; but even in their more civilized states, many barbarous usages and savage customs prevail. For ages, the blacks have been sought for as slaves in other parts of the world, and even at home the greater part of the population is the property of the rest.

Of the great interior States of Africa, we know very little; but they seem to be populous, and to have towns of considerable size. Agriculture is practised and the region possesses large herds of cattle. The Caffres, who inhabit the southern and southeastern portions of Africa, appear to be mostly wandering shepherds.

CHAPTER LXXV. MAGHREB, OR BARBARY.

1. Boundaries. This section, comprising all the northern part of Africa to the west of the Nilotic region, is bounded on the north by the Straits of Gibraltar and the Mediterranean Sea; east by Egypt; south by Sahara; and west by the Atlantic Ocean. It consists of a narrow strip of fertile country along the Mediterranean, and a series of oases along the southern border, and is traversed by a mountainous chain called the Atlas Mountains. It is politically divided into three states, usually called the Barbary Powers, and the French colony of Algiers; but parts of the territory are also occupied by numerous independent tribes of Arabs and Berbers.

2. Surface and Climate. The Atlas Mountains, which traverse the whole region from east to west in several ranges, rise to their greatest elevation in Morocco, where some of the summits exceed 12,000 feet. The rivers which descend from these mountains reach the sea after a short course, but they fertilize the plains which they water. On the east and south are extensive deserts, dotted here and there with cultivable and inhabitable wadys or oases. The maritime region, sheltered from the burning winds of the desert by the mountains, and open to the sea breezes, enjoys a pleasant climate.

3. Productions. The productions of the fertile soil of Barbary are not materially different from those of southern Europe, the temperature being nearly the same. Wheat and barley are chiefly cultivated; beans and lentils are abundant, and in addition to the common fruits of Europe are the date and lotus.

4. Tripoli. This state occupies the most easterly portion of Barbary, and is the most advanced in civilization; it has an area of 270,000 square miles, most of which is sterile, with about 700,000 inhabitants. Tripoli Proper is an arid district, thinly peopled. Barca is little more than a desert. Fezzan is traversed by the Soudah, or Black Mountains, and its surface in general is a desert sprinkled with verdant oases. There is little productive soil in any part of the country, and the cultivation is bad. Dates, maize, and barley are raised, and figs, pomegranates, and lemons are abundant.

Tripoli, the capital, has a good harbor upon the Mediterranean. The streets are straight and wide, and the houses regular and well built; the architecture is more European than Arabian, and the city is much handsomer than the generality of the Moorish towns. Many of the houses are of stone, and the courts, mosques, and gates are adorned with marble. The great mosque is a magnificent structure, with four cupolas supported by columns of marble. The city is surrounded by a high wall and strongly fortified. Population, 25,000. *Derne* is a small town, which was taken by the Americans under General Eaton in 1805.

In the Desert of Barca are several oases and fertile tracts containing the ruins of the ancient Greek colony of Cyrenaica. The inhabitants of the oasis of *Augelah*, carry on a caravan trade with Bornou and Timbuctoo; slaves form the principal article of importation. Fezzan is a large province consisting of several oases, which contain a considerable population. *Moorzook*, one of them, with narrow streets and mud huts, is the great mart of the inland trade of Northern Africa, and the rendezvous of the caravans from Cairo, Tripoli, Tunis, Gadames, Timbuctoo, and Bornou.

Sodames, in the oasis of the same name, is also a place of much commercial activity. It presents, like several other towns of Barbary, the singular spectacle of a small town, inhabited by two separate communities, who are frequently at war with each other. A common wall encloses the whole town, but the space within is divided by an interior wall into distinct sections, occupied by distinct tribes. The two sections communicate by a gate, which is closed in time of war. The commerce of the country consists in the exportation of dates, honey, wax, madder, skins, oil, salt, saffron, gum, feathers, &c., some of which are brought by caravans from the interior. Most of the commerce is transacted at Tripoli. The government is absolute.

5. Tunis. The smallest, but most populous and best cultivated of the Barbary States; Tunis, is bounded north by the Mediterranean; east by the same sea and Tripoli; south by the desert; and west by Algiers. It contains an area of 54,000 square miles, with 1,800,000 inhabitants. A mountainous ridge traverses it from north to south. In the south is a large lake, known to the ancients as the *Palus Tritonis*. The climate is healthy and the soil of the valleys and the lower part of the mountains is fertile. It is watered by the Mejerda or Bagradas, a considerable river, and on the coasts are several good harbors.

Tunis, the capital, is one of the best built towns of Africa, yet the streets are narrow and dirty, and the houses low and mean. The palace of the bey is a large building in the Moorish style; there are several mosques, and a number of schools, and the town is supplied with water by an aqueduct. Commerce and manufactures of velvet, silk, and linen, employ many of the inhabitants. Population, 100,000. Six miles from the town is *Goletta*, the port and citadel of Tunis, with an arsenal and ship-yards. In the neighborhood is the site of the ancient city of *Carthage*, long the mistress of the Mediterranean and the rival of Rome. The only remains of this celebrated place are detached fragments, or portions of walls, aqueducts, &c. *Cabes*, on a gulf of the same name in a fertile district, has a good harbor, and 20,000 inhabitants engaged in commerce and manufactures. *Cairuan*, in the interior, is the centre of an important inland traffic. Its population is about 50,000.

6. Algiers. This rich and important territory, until 1830 the seat of a piratical state, is now occupied by the French; its fine climate, fertile soil, and central situation render it a valuable acquisition.

Algiers, formerly the capital of the state, and now of the French colony, is built upon the declivity of a hill in the form of an amphitheatre; the harbor is good, the streets narrow, and the houses low, with flat roofs. The principal public buildings are the palace of the dey, consisting of two large courts, surrounded by large buildings, and adorned with spacious marble colonnades; the dshami or principal mosque; the barracks, which are the handsomest edifices in the town, and are decorated with marble and adorned with fountains; the bagnios, or prisons in which the slaves were shut up at night, and the bazars. The last dey resided in the *Cassaba* or citadel, a strong fortress, in the vaults of which the French seized about ten millions of dollars. The population of Algiers is now about 30,000.

Oran, on the coast, with about 10,000 inhabitants, has a good harbor. *Bona*, to the east of Algiers, with 10,000 inhabitants, is in the province of Constantina. *Constantina* is the largest town of this part of Africa. It lies 20 days' march to the southeast of Algiers, and the intervening tract is uninhabited. Population, 50,000. *Bugeiah* between Constantina and Algiers, has a good harbor and rich iron mines. The *Cabyles* in this vicinity are remarkable for their fierce disposition and warlike habits. *Tremecen* is the principal town in the province of Oran; it has about 20,000 inhabitants, who carry on some manufactures. *Medea*, in the fertile province of Tittery, and *Blida* or *Belydah*, delightfully situated in a productive district, are important towns.

Algiers formerly had a considerable trade in the exportation of corn, dates, silks, copper, handkerchiefs, rugs, feathers, &c. The manufactures are carpets, silk, cotton, woolen, leather, and coarse linen. The French had, previous to the revolution, formed establishments upon several parts of the coast for commerce and the fishing of coral; but these were broken up by the late wars. Till this period most of the maritime trade was in the hands of a French company at Marseilles. The population is 2,000,000.

This petty state has long been infamous for its piracies. Until the present century all the nations trading to the Mediterranean were subjected to an annual tribute in order to protect their commerce from plunder and their citizens from slavery. A severe blow was struck at their naval power by the American and English fleets, in 1816. The French government in 1830,

despatched an army of 40,000 men, who landed, and effected an easy capture of the city of Algiers, in the autumn of that year. The province may now be considered as a colony of France.

7. *Empire of Morocco or Morocco.* This State, bordering upon the Atlantic Ocean and the Mediterranean Sea, is highly favored by nature in its mild climate, fertile soil, and advantageous position upon 2 seas; but bad government and civil discord have deprived it of the benefit of its natural advantages. It has an area of 175,000 square miles, with 6,000,000 inhabitants. It comprises the kingdoms of Morocco, Fez, Suz, Tafilet, and some other provinces; but many of the tribes, within these limits, are entirely independent, and often at war with the government of Morocco, and with each other.

Morecco or Marocco, the capital, is a large town, situated in a fertile and elevated plain, in the rear of which rise the highest summits of Mount Atlas. It is much reduced, but still contains many sumptuous edifices, which attest its former splendor. The imperial palace, consisting of numerous pavilions, courts, and gardens, covers a space 4,500 feet long, by 1,800 broad; one of the mosques is distinguished for its lofty minaret, 220 feet high, and several others are remarkable for their size; the vast building, called Bel-Abbas, comprises, in its precincts, a sanctuary, a mosque, a mausoleum, and a hospital, which accommodates 1,500 patients. The great morocco manufactory, the granaries, &c., are also worthy of notice. Population, 70,000.

Fez, the capital of the province of that name, is the largest city in the empire. It stands on the slopes of several hills, and is watered by a river. The streets are narrow; the houses are of brick or stone, and often adorned outwardly with mosaic work. The roofs are flat, and many have high towers, decorated with carving and gilding. There are 200 mosques in the city, and 2 colleges. The place was once a famous seat of learning, and the metropolis of the Mahometan faith in the West. Almost all the houses have fountains, which are supplied with water by canals from the river. The markets are excessively crowded, and the Arabs of the surrounding regions resort hither for all their supplies. Population, 80,000.

Mequinez has frequently been the residence of the Sultans, who have here a handsome palace. The city is surrounded by a triple line of walls, 15 feet high, and resembles the other Moorish towns. The inhabitants are esteemed more polished and hospitable than those of the other cities. On one side, stands a quarter inhabited by negroes. The surrounding country is fertile, and well cultivated. Population, 60,000.

Mogador is a seaport on the Atlantic. It is built in a flat, sandy desert. The houses are of white stone, and make a fine appearance from the sea. The harbor is shallow, and is defended by 2 batteries. There is considerable commerce carried on with the north of Europe, and America. Population, 10,000. *Salles*, a seaport on the Atlantic, has been famous for its piracies. It stands at the mouth of a river, and is defended by a wall and battery. There are many commercial houses established here by Europeans, but the trade is declining, in consequence of the filling up of the harbor. Population, 20,000. *Tangier* is a seaport, just within the Straits of Gibraltar. It is the residence of many foreign consuls, but it has little trade. Population, 10,000.

The commerce of Morocco is chiefly transacted at Mogador, from which place are exported goat-skins, oil, almonds, gums, wax, wool, ostrich feathers, pomegranates, and dates. The land-trade, with the Arab and negro tribes, is carried on by caravans. The manufactures are carpets, woollen and cotton cloths, silk, morocco, leather, paper, and saltpetre.

8. *Biledulgerid.* Biledulgerid, or the *Land of Dates*, is a district lying between Tunis and Algiers on the north, and the Great Desert on the south. It is mountainous, sandy, and barren, producing little vegetation. Some parts, however, are covered with thick groves of the date palm. The climate is hot and unhealthy. The inhabitants are a mixture of the native Africans and wild Arabs; the former living in small villages, and the latter in tents, roaming from place to place, in quest of plunder.

9. *Inhabitants.* These are principally of 3 great races. 1st. The Moors are of a mixed origin, being descended from the ancient inhabitants, Arabs, Romans, &c. Their complexions are lighter than those of the Arabs, and they are a well-formed race. 2d. The Arabs are much like those of Asia, and are descended from the original conquerors, and from emigrants from Sahara. They are pastoral, and live in tents. 3d. The Berbers are a race differing from the two former in language and customs, and, therefore, probably of a different origin. They are warlike and free. Of these, the chief tribes are the Shilloos, in the mountains of

Morocco ; the Cabyles, a white people, in the mountains of Algiers and Tunis ; the Tibboos, and the Tuaricks.

The Berbers are probably the original inhabitants of a great part of Northern Africa ; some of them are quite black, but they have not the negro physiognomy. The Jews are also numerous in the Barbary States, where they are treated with great harshness, and are a general object of hatred and contempt. The Turks are the ruling race in Tunis and Tripoli, as they were in Algiers, until its conquest by the French ; but they are not numerous. Beside these various races, are the negroes, who are imported from Nigritia, as slaves ; in Morocco, however, they form the standing army of the empire, and the garrisons of the fortresses.

10. *Commerce.* With a fertile soil, and a little manufacturing industry, the productions of the earth must form the principal articles of export from this region. Barbary, in ancient and even modern times, has been the granary of Europe ; but, as corn is not now allowed to be exported, fruits, gums, hides, wax, and morocco, are the chief materials for the maritime commerce. Haicks, a species of woolen cloth, always worn by the Moors, when they go abroad ; sashes and silk handkerchiefs, carpets, and the conical woolen caps, called skull-caps, and worn all over Barbary and the Levant, are manufactured, and furnish articles of inland traffic. The caravan trade with the interior of Africa, is chiefly carried on from Morocco and Tripoli ; the caravans carry salt, tobacco, and European goods, and bring back slaves, ivory, and gold-dust.

11. *Government.* The government of Morocco is an absolute despotism ; but most of the numerous tribes, which are found in all parts of Barbary, are governed by their own chiefs, whose authority is limited, by the usages and free spirit of the respective people. The government of Tunis and Tripoli is also despotic ; the Bey of Tunis, and the Pacha of Tripoli, are nominally dependent upon the Porte, but really independent sovereigns. The monarchs of Morocco claim the crown in the capacity of sheriffs, or descendants of Mahomet ; and they attempt to increase the lustre of the regal dignity and the authority of their office, by assuming the character of doctors, prophets, and saints ; which, however, they seem to regard as not inconsistent with the most unbounded indulgence of cruelty and sensuality. The emperor, claiming the supremacy in religion, which, in Mahometan countries, includes law, there is no body that has any check or control over him, but everything depends on his caprice. The Bey of Tunis, in 1816, not only emancipated himself from a dependence on the Porte, but also got rid of the licentious and turbulent Turkish soldiery. The Pacha of Tripoli, in the beginning of the present century, was merely a Turkish governor ; but, having seized all the Turkish officers at a feast, he caused them to be strangled, and his adherents then massacred most of the Turkish soldiers. The government, though absolute, has been of a mild character, and the country has assumed an orderly and civilized appearance.

12. *Dress.* The complete dress of a Moor, includes a red, pointed cap, with a turban, or cotton sash, wrapped round it ; a shirt, with wide sleeves ; short, white drawers, of great width ; a woolen waistcoat, or a small, cloth jacket ; a silk or woolen sash, and yellow slip-pers. The legs are always bare. The haick is a universal garment ; it is a piece of cloth, 5 ells long, and 1½ broad, thrown over the shoulder, and fastened around the waist. Many Moors wear the caftan, a loose coat, reaching to the knee. The females dress loosely, and encumber themselves with ear-rings, bracelets, and rings on the ankles. They dye the hair, feet, and finger-nails, a deep saffron-color, with henna. The only paint they use for the face, is white.

13. *Language.* The common languages are the Turkish, the Hebrew, and the Arabic ; the latter predominates, though it is not spoken with purity.

14. *Manner of Building.* Generally, the houses are rudely and unskilfully built. They are square, with flat roofs, and an open area, or court, within, in which the cooking is performed, for there are no chimneys. There are few windows. In some cities, the houses are mostly whitewashed. The pastoral tribes dwell in tents, shaped like an inverted boat. In the mountains of Tripoli, there are subterranean villages, with wells and space for cattle. They are so constructed, that they can stand a siege.

15. *Food and Drink.* The chief articles of food are bread, mutton, poultry, fish, butter, cheese, oil, olives, and fruits. Little beef is used. The common dish is the *Kouskousou*, a kind of paste made of meal, formed into small rolls, and placed in a colander over the vapor of a kettle, in which meat is boiling. The common people add to it milk or butter, the rich a nourishing broth. Coffee used to be as general as in the East, but of late years it has been superseded by the use of tea, which is now given to visitors at all hours. Wines and spirits,

though forbidden in the Koran, are drunk when they can be obtained, to excess. The duties on opium are so great, that few use it ; but an extract is made from a narcotic plant, perhaps a kind of flax, which exhilarates without intoxicating. Tobacco is somewhat used in smoking, and as snuff.

16. *Diseases.* Blindness is common, and the plague has sometimes nearly depopulated cities. The general means adopted for cure is by charms, amulets, &c.

17. *Traveling.* In the interior villages, a house is set apart for strangers, with a proper officer to furnish one night's entertainment. In the cities, there are no inns. The general mode of traveling is with mules, horses, or camels.

18. *Character, Manners, and Customs.* The Moors of Barbary have been very proverbial in Europe for cruelty, indolence, ignorance, and fanaticism. If the country does not derive its name from its barbarous inhabitants, the name is nevertheless equally well deserved on that account. The inhabitants, except those of towns, are divided into tribes or clans, which are often at war, and which offer insuperable obstacles to civilization. They pass an active life, and are hardy and warlike. The inhabitants of cities carry indolence to a Turkish extreme. In Morocco, and other western cities, where men meet in the street, to converse, they forthwith seat themselves on mats, and the streets are often filled with these groups. A shopkeeper arranges his wares so that he can reach any of them without leaving his seat, and the very watchman performs guard-duty in a sitting posture. The people of Tunis and Tripoli are the least barbarous. The name of Algiers conveys to us the idea of a ferocious and bigoted savage ; but Mr. Shaler, who has lived in Algiers many years, represents the people as insinuating, courteous, and without much fanaticism, though not without humanity. They are, however, like their ancestors, inconstant and treacherous. The common salutation in Barbary is, "Peace be with you." Merchandise is measured by the arm, from the elbow. The females when they would honor a person, as the emperor, raise sudden and piercing shrieks, and the manners and customs, generally, are those of a very rude state of society.

The Jews in Barbary are a numerous and much oppressed class. The house of a Jew, and all its sacred relations, is open to every Moor who will violate it. A Jew may be beaten by men, and pelted by boys. When riding he is forced to dismount, if he meet a Moor ; to make humble obeisance to one of distinction, and to walk with bare feet in cities. Even the females are compelled to do this. The Jews perform most of the trades, and monopolize the commerce. They form the only industrious class in cities. In no other country are they so much depressed as in Morocco ; yet here they are distinguished for being well formed, and the females are considered as some of the most beautiful in the world.

The Arabs chiefly occupy the plains, and they exhibit the same pastoral and migratory habits, the same simplicity of manners, and the same union of hospitality and plunder, that characterize their countrymen in Arabia ; they live in tents, a number of which forms a camp under a sheik, and several camps often acknowledge a chief, called emir.

Some of the Berbers or Brebers have the same migratory habits as the Arabs ; their food consists of camel's milk and dried camel's flesh, that animal constituting their sole wealth. They wear woolen gowns, which cover but a part of the body, and sometimes leather caftans and shirts. Rush mats form their beds, and their tents are made of camel's hair, or a coarse woolly substance, obtained from the date palm. Others cultivate the earth, and are stationary in their habits. The Berbers, although Mahometans, do not scrupulously follow all the ordinances of their religion ; thus they drink wine and eat pork. The Marabouts are a sort of priests or saints, who are looked upon with great veneration by the Berbers ; they often exercise great authority, and maintain a considerable military force. They alone understand Arabic, and can interpret the Koran.

19. *Amusements.* There are many equestrian exercises, for all the Moors are much attached to horses, and an Emperor of Morocco, improving on the example of his brother of Rome, declared some of his horses *saints* ! The riders use a bit that will stop the horse in an instant, when going at full speed. A Moor will spur his fleet horse at full speed towards a wall, and when it seems that both must be killed by the collision, the animal is stopped within a few inches of the barrier. Other amusements are juggling, exhibitions of dancing, story-telling, and, about Tunis, hawking is practised.

20. *Education.* To read in the Koran, and to write, are the ends of education in most Mahometan countries. Education is often advanced thus far in Barbary. The Koran, however, is sometimes committed to memory, and the reader goes over it like a parrot, with

little aid from the characters. Boys at school have a board and piece of chalk, with which they write ; and they instructed each other long before the time of Lancaster.

21. *Arts.* No art but that of music receives encouragement. There are some pretty airs, and the common instruments are a rude hautboy, the pipe, tabor, mandoline, and drum. The sciences, which anciently formed the glory of the Moors, are now extinct in this region ; philosophical instruments of excellent construction are still seen, but they are shown only as curious relics, and even medicine is practised by physicians, whose skill reaches little further than to dress a wound.

22. *Religion.* This is the Mahometan. In Barbary saints are common, and to be one is a kind of profession or trade. There is at Fez a religious foundation, for the support and burial of storks and cranes, which are supposed to be animated by the souls of men. The marriages are attended with rejoicing ; the bride is carried home in a cage, placed on a mule attended by music. Four wives are allowed, but polygamy is not general. Divorces are easy to be obtained by the husband ; and the wife is entitled to one ; the third time she may be cursed by her husband. For the first curse, he must pay her eight ducats, and a rich dress for the second. A neglect to provide for the wife, is also a ground for divorce. At burials, a concourse attends, and the women howl fearfully. Some are hired to tear their faces, and utter lamentations. The dead are dressed as when they lived, and the tombs and graves are neatly kept.

23. *Laws.* The administration of justice is in none of these States in favor of the innocent. The maxim seems to be, that it is better that the innocent should suffer, than the guilty escape. The cadis are the judges, and the execution immediately follows conviction, or sentence. Small offences are punished by the bastinado ; great ones by burning alive, which is chiefly inflicted on Jews and Christians ; and by impalement and tenter hooks, on the Moors. The tenter hooks project from walls, and the culprit is thrown upon them, where he drops from one to another, and sometimes lingers in agony for hours. In impalement, a stake is thrust longitudinally through the body. The western Moors sometimes punish crimes by tying the criminal between two boards, and sawing him asunder lengthways, beginning at the head. Women are sometimes tied in a sack and drowned. At Algiers the post of executioner is one of honor ; at Morocco it is a dangerous and infamous office. In the former city, this officer of the law may aspire to a place in the state.*

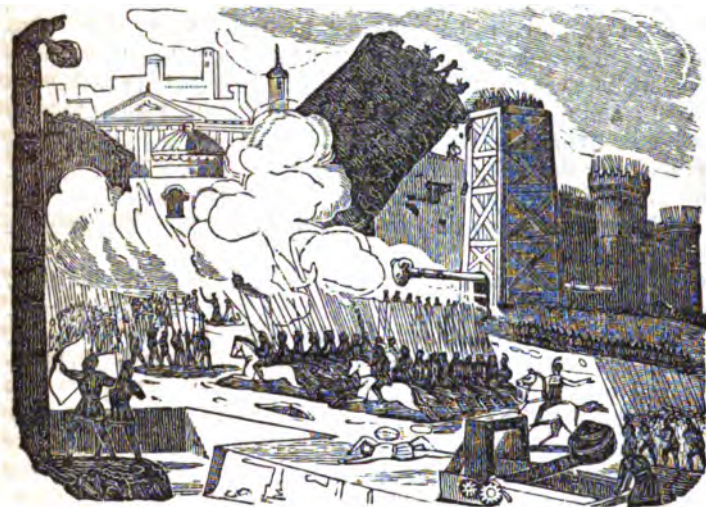
" I saw a great concourse of soldiers, and on inquiring the cause, found that an execution was about to take place, and some malefactors were at the same time to be maimed. The governor arrived at this moment, and the prisoners were driven in with their hands tied ; the order for punishment was read by the cadí or judge, and the culprits told to prepare themselves, which they did by saying, *Hi el Allah Shed a Mohammed Rasool Allah* and worshipping. They were then made to sit down in a line upon their legs on the ground ; a butcher then came forward with a sharp knife in his hand ; he seized the first in the line on the left, by the beard, with his left hand ; two men were at the same time holding the prisoner's hands ; the butcher began cutting very leisurely with his knife round the neck, (which was a very thick one,) and kept cutting to the bones until the flesh was separated ; he then shoved the head violently from side to side, cutting in with the point of the knife to divide the sinews, which he seemed to search out among the streams of blood, one by one ; he finally got the head off and threw it on a mat that was spread to receive the mutilated limbs of the others. There were eight more, who were sentenced to lose a leg and an arm each, and nine to lose only one arm. The butcher began to amputate the legs at the knee joint, by cutting the flesh and sinews round with his knife, which he sharpened from time to time on a stone ; he would then part the joint by breaking it short over his knee, as a butcher would part the joint in the leg of an ox. Having in this manner got off the leg, and thrown it on the mat, he proceeded to take off the arm at the elbow, in the same leisurely and clumsy manner ; he seemed, however, to improve by practice, so that he carved off the hands of the last eight at their wrists, in a very short time. — this done, they next proceeded to take up the arteries, and apply a plaster, which was soon accomplished by dipping the stumps into a kettle of boiling

pitch that stood near, or something that had the same appearance and smell. Is not this last circumstance an improvement in surgery ? They then carried the lifeless trunk and mutilated bodies, with the head and other limbs, to the market ; the head and limbs were carried on a mat by six men, who were making as much sport as possible, for the spectators ; the bodies were thrown across jackasses, and they were exposed in the most public part of the market place, nearly the whole day. The two governors, and other officers who were present during the execution of the sentence, were sitting on the ground next to the wall, appearing quite unconcerned, and were conversing gayly on other subjects. The Moors, who came from mere curiosity, did not show the least mark of disapprobation, or any signs of horror ; they jested with the butcher, who seemed highly gratified with the part he was acting.

" I now asked Rais bel Cossim, who attended me, concerning the mode of procuring an executioner, &c., &c. He told me, that when an order came to execute or maim any culprits, it generally embraced several at the same time, so as to make but one job of it ; that the butchers were called upon by the alcayd or governor, and forced to find one out of their number to do this work ; that they then made up a purse agreeably to a rule, made among themselves in such cases ; that is, two and a half ducats per man for cutting off heads, and two ducats per man for maiming ; (two and a half ducats make one dollar, or forty cents per ducat ;) they then question each other to know who will accept of the money, and do the job ; if no one appears willing, they cast lots, and the one on whom it falls, is obliged to undertake it. This man is protected by the governor for twenty-four hours after the execution, when he is left to take care of himself, brave the public odium, and the revenge of the friends of the sufferer, or else to fly ; he generally goes off the first

24. *Antiquities.* Carthage is an indistinct ruin ; though, in rowing along shore, Shaw could see the outlet of the sewers. The cisterns, also, may still be seen. The aqueduct may be traced 50 miles. Some of the arches are 70 feet high, and a man may walk upright in the conduits. There are remains of other ancient cities in the eastern parts of Barbary, with pillars, arches, gates, tombs, and sculptures.

25. *History.* Barbary occupied a more conspicuous place in the ancient, than in the modern world. Cyrenaica, its most easterly portion, was the seat of several flourishing Greek colonies. Carthage, further west, was, at one time, the mistress of Spain, Sicily, and the whole of the western Mediterranean ; but she fell in the struggle with Rome. The southern



Destruction of Carthage.

part of Tunis, with Constantina, formed the powerful kingdom of Numidia, illustrious both as an ally and an enemy of Rome. Mauritania and Getulia, to the southwest, were distinguished for the fierce valor of their inhabitants. The Roman arms reduced nearly all of these regions, which were afterwards wrested from Rome, by Genseric, the Vandal. At a still later period, the Saracens invaded them, and established their religion permanently in Northern Africa. At first, Barbary was governed by the viceroys of the Caliph of Bagdad ; but when the

empire of the Saracens began to crumble, it formed several separate kingdoms, which, for more than 3 centuries, have been sinking deeper and deeper into ignorance and barbarism. In the 15th century, the celebrated Turkish pirates, Barbarossa and Hayraddin, seized upon Algiers, Tunis, and Tripoli, and made them dependencies of the Turkish empire, and from that time they devoted themselves to general piracy. In the beginning of the present century, Tunis and Tripoli freed themselves from the Turkish yoke ; but the flagrant piracies of Algiers, drew upon her the vengeance first of the United States, and afterward of England and France.

CHAPTER LXXVI. SAHARA, OR GREAT DESERT.

THIS great waste extends from the Atlantic to the Nile-valley, and from the Barbary States to Senegambia and Nigritia. It stretches from latitude 16° to 30° North, and from longitude 29° East to 17° West, having a length of about 3,000 miles, a breadth of 800, and an area of about 1,600,000 square miles. The eastern part is often called the Desert of Libya, and it may be considered as forming a part of a great desert zone of sand and naked rocks, which, with few and slight interruptions, reaches from the Atlantic Ocean, over Central Asia, to the borders of China, through 130 degrees of longitude. Sahara consists of a table-land, raised a little above the level of the sea, covered with moving sand, and here and there containing some rocky heights and valleys, where the water collects and nourishes some thorny shrubs, ferns, and grass. Along the shore of the Atlantic, are some mountains in detached peaks ; towards the interior, the heights lose themselves in a plain, covered with white and sharp pebbles. For a great part of the year, the dry, heated air, has an appearance of a reddish vapor, and the

night afterwards to some other place, and never returns ; his wife, if he has one, can be divorced from him, by applying to the *cafi*, or judge, and swearing that as her husband has served as an executioner, she is afraid to live with him, lest he should be tempted to commit some violence on her, in a similar way.

"The butcher, who acted on the present occasion, was a voluntary executioner for 48 ducats, and he decamped the next night, leaving, as I was informed, a wife and 7 children, to shift for themselves ; he was poor, and carried away his wages of death with him." — *Riley's Narrative.*

limestone looks like the fire of a series of volcanoes. Rain falls, in some districts, in the latter part of summer. An aromatic plant resembling thyme, acacias, and other thorny shrubs, nettles, and brambles, are the ordinary vegetation. A few groves of the date, or other palm trees, are met with here and there. On the southern border, are forests of green trees. Some monkeys and gazelles support themselves on the scanty vegetation. Numerous flocks of ostriches are also found here. Lions, panthers, and serpents, add to the horrors of these frightful solitudes. The animals live almost without drink. The flocks consist of camels, goats, and sheep.



Killing a Panther.

The coast contains some good harbors, as the Rio do Ouro, and the harbor of St. Cyprian. Here is Cape Bojador, the terror of the navigators of the middle age, and down to the year 1553, the fatal limit of all voyages in this direction. Cape Blanco, a little further south, is thought to be the southern limit of the Carthaginian discoveries.

The manner of traveling, is with camels; and every traveler, or, indeed, every Arab, is constantly armed, for the tribes generally live in that state of pillage and warfare, that mark the descendants of Ishmael. The camel, only, of all domesticated animals, finds a support in the scanty vegetation of a

few spots in the desert. A common camel can easily travel 100 miles in a day. The caravans from Morocco take 130 days to cross the desert, 54 of which are traveling days, and the others spent at the different stations, in rest. The desert is a shifting sea of sand; there is no track, and there are few landmarks. Drought, or clouds of sand, often destroy travelers. In 1805, a caravan of 1,900 camels, and 2,000 people, perished from drought, as there was no water at the usual wadeys. Caravans of traders cross this immense desert, from the Barbary States to Central Africa. The only animals capable of being employed in this service, are camels, which, from their ability to travel many days without water, are admirably fitted for these journeys. A few spots, scattered here and there, afford, occasionally, a pool or stream of

water, and a grove of palm trees. These are called *wadeys*, or watering-places.

No part of the earth's surface seems so unfit for the support of human life, as the great Desert of Sahara; yet it is inhabited by many roving tribes of Arabs, Moors, Tuaricks, and Tibboos. Existence, here, is a constant struggle with hardship and want. The inhabitants are composed of Arabs and their negro slaves. The Arabs are of a reddish, copper color, and they are hardy enough to endure, without murmuring, the frequent extremes of want, to which their situation exposes them. They are lean, but strong. Their eyes are black and piercing, their hair and beard black, their cheek bones prominent, and their noses aquiline. The old women are represented as ugly beyond all comparison, while the young



A Wadey.

are not deficient in beauty. They take great pains to make the eye teeth project beyond the others, and the lip is often held up by them; this gives to a sharp and wrinkled face, a ferocious expression. The dress consists chiefly in a piece of coarse camel's hair cloth, or a goat skin, tied round the middle, and there is no covering for the feet or head. The language is the Arabic. The dwellings are movable tents, covered with a coarse cloth of goat's hair, or camel's hair; and there is no furniture, but a few rude dishes, utensils, and mats to sleep on. The common food is the milk and flesh of camels; a camel gives, daily, more than a quart of

very rich milk. The Arabs, however, suffer greatly from scarcity of food and water, and are often reduced to live on what will barely support life. In some parts, dates, millet, maize, and gum are general articles of food. In an atmosphere perfectly dry, and with a manner of life so simple, there can be few diseases; and the Arabs, who do not fall by the sword, generally die in extreme old age. The Arabs are high-spirited, rapacious, perfidious, and revengeful; yet, within certain limits, hospitable and compassionate;—they have, however, no compassion for a Christian, and it is chiefly from the unfortunate, ill-treated, shipwrecked mariners, that we are acquainted with them. They are quick and sagacious, above all other barbarians, and they have a great pride of independence; feeling contempt for any people, who submit to organized governments. The lot of a Christian, cast in this inhospitable coast, is deplorable. He is seized, stripped, and perhaps wounded, or killed, by the cimitars of those who light over him for his absolute possession. The master of the captive is uncommonly merciful, if he allows his slave a remnant of his own clothing. Generally, the captives have to bear, on their naked bodies, the burning force of the sun, and they have little shelter or covering in the cold dews of night. They are forced to run beside the camels, in the long and constant marches of the tribes,—or, if permitted to ride, it is hardly a desirable change. The Arabs have so little food themselves, that frequently nothing is given to the Christian slaves, who must die of famine, if they cannot support nature by a few snails and bitter herbs. Of late years, shipwrecked mariners have generally been sold to persons who carry them, for redemption, to Mogadore. The negro slaves are treated well; eating of the same food, and sleeping on the same mat, with their masters. Where life is a constant struggle with want, there is not much disposition for amusement, and there is little in the desert. Drafts and chess, however, are sometimes played.

Education is confined to reading the Koran, and the schools are generally kept by the *talbes*, or priests. The religion is so strictly Mahometan, in spirit and practice, that there is no human sympathy for any suffering of a Christian or Jew. Hospitality, however, is the virtue of the desert; and one Arab, who throws himself in a village, upon the protection of the tribe, is certain of security and entertainment, though his hosts might have robbed him, had they met him in their excursions. The government is that of sheiks or chiefs, who are elected, or assume the power, that superior courage or sagacity confers.

The eastern part of the desert is chiefly occupied by the Tibboos, a Berber race, who own great herds of camels, and plunder the unlucky travelers, whom they encounter. Their country contains numerous salt lakes, and yields large quantities of that valuable mineral, in which some of the Tibboos now carry on a profitable traffic with Nigritia. In the central part, are the Tuaricks, also a Berber nation. Some of their oases contain considerable towns. The Tuaricks are often engaged as guides to the caravans, as agents for foreign merchants, and sometimes become traders themselves.

CHAPTER LXXVII. NIGRITIA, SUDAN, OR LAND OF THE BLACKS.

1. *Boundaries, &c.* This is an extensive region, which derives its name from the color of its inhabitants, comprising numerous powerful States, and large tracts of country imperfectly known. It lies between 6° and 16° north latitude, and between 32° east and 8° west longitude, having the Desert of Sabara on the north; Nubia and Abyssinia on the east; the unknown regions of Central Africa and Guinea on the south; and Senegambia on the west. It is about 2,600 miles in length, by 600 in breadth, and has an area of 1,500,000 square miles.

2. *Rivers.* The *Niger*, which traverses a great part of this country, has been, for a great number of years, an object of uncommon interest, and speculative and practical research. Its origin, and a part of its course, have been known to the world for many centuries, but its termination remained undiscovered; and the researches of travelers, combined with the theories and conjectures of geographers, only established the fact, that a great river of Central Africa, rising in the mountains of Western Guinea, flowed eastward into unknown regions. The most elaborate hypotheses were framed, to account for its termination. By some, it was supposed to be swallowed up in the sands of the desert. By others, it was imagined to flow into vast lakes, having no outlet, where its waters were dissipated by evaporation. Other theories connected it with the Nile of Egypt, the Zaire of Congo, and the streams flowing into the Bight

of Benin. The celebrated Mungo Park lost his life in the attempt to travel along the stream to its termination, and various other expeditions, despatched for a similar purpose, failed of their object. The great question seemed to be shrouded in impenetrable mystery, when in 1830 the discovery was effected by Richard and John Lander, the former of whom had been the attendant of Captain Clapperton upon the journey in which he died. These two travelers proceeded by land from the coast, to Boossa on the Niger, and following the course of the stream downwards, reached the Atlantic Ocean in November, 1830, through the channel of the river Nun, flowing into the Bight of Benin. This channel is one of the numerous mouths of the Niger which intersect the country, forming a delta 240 miles in extent along the coast.*

3. *Lakes.* The discoveries of late English travelers have made known to the world a large lake of fresh water called the *Tchad*, in the eastern part of Nigritia. It lies in about 14° N. latitude and 15° E. longitude, and was first seen by Dr. Oudeney and his companions. It was first visited by Major Denham, who traveled along a great part of its borders, but was obliged to leave 140 miles of it unexplored. He was informed that it had no outlet. His approach to it is thus described. "By sunrise I was on the borders of the lake, armed for the destruc-



Tchad Lake.

tion of the multitude of birds, who, all unconscious of my purpose, seemed, as it were, to welcome our arrival. Flocks of geese and wild ducks of a most beautiful plumage were quietly feeding within half pistol shot of where I stood, and not being a very keen or inhuman sportsman, for the terms appear to me to be synonymous, my purpose of deadly warfare was almost shaken. As I moved towards them they only changed their places a little to the right or left, and appeared to have no idea of the hostility of my intentions. All this was really so new, that I hesitated to abuse the confidence with which they regarded me, and very quietly sat down to contemplate the scene before me. Pelicans, cranes four or five feet in height, gray, variegated and white, were

scarcely so many yards from my side, and a bird between a snipe and a woodcock, resembling both, and larger than either; immense spoonbills of a snowy whiteness, widgeon, teal, yellow-

* We subjoin a few passages from the London Quarterly Review, containing extracts from Lander's Journal.

This morning I visited the far-famed Niger or Quorra, which flows at the foot of the city of Boossa, about a mile from our residence; and I was greatly surprised at its reduced breadth. Black, rugged rocks rose abruptly from the centre of the stream, and its surface was agitated by whirlpools. At this place, in its widest part, (the end of the dry season,) it was not more than a stone's throw across. The rock on which I sat overlooks the spot where Mr. Park and his associates met their unhappy fate."

From Boossa to Yáoori they proceeded up the river by a canoe; it was divided into many channels by rocks, sand-banks, and low islands, covered with tall, rank grass, and some of the channels were so shallow, that their canoe was constantly grounding. They were told at Yáoori, however, that, above that place and below Boossa, the navigation was not interrupted by either rocks or sand-banks; and that, after the *malca* or wet season (setting in with fourteen days of incessant rain), canoes of all kinds pass to and fro between Yáoori, Nyffe, Boossa, and Funda. "It is immediately after the *malca*, also, that the river, by the depth and velocity of its current, sweeps off the rank grass which springs up annually on its borders. Every rock and every low island are then completely covered, and may be passed over in canoes without difficulty, or even apprehension of danger."

"After leaving Layaba, we ran down the stream for 12 or 14 miles, the Quorra, during the whole distance, rolling grandly along,—a noble river, neither obstructed by islands, nor deformed with rocks and stones. Its

width varied from 1 to 3 miles, the country on each side very flat, and a few mean, dirty looking villages scattered on the water's edge. Just below the town of Bajiebo the river is divided by an island. At this town, which we left on the 5th of October, for the first time, we met with very large canoes having a hut in the middle, which contained merchants and their whole families. At the island of Madjie, where we were obliged to stop for canoe-men, we found trees of hungry growth and stunted shrubs, whose foliage seemed for the most part dull and withering; they shoot out of the hollows and interstices of rocks, and hang over immense precipices, whose jagged summits they partly conceal; they are only accessible to wild beasts and birds of prey. The river below Madjie takes a turn to the east by the side of another range of hills, and afterwards flows for a number of miles a little to the southward of east. On leaving the island, we journeyed very rapidly down the current for a few minutes, when, having passed another, we came suddenly in sight of an elevated rocky hill, called Mount Kasey by the natives. This small island, apparently not less than three hundred feet in height and very steep, is an object of superstitious veneration among the natives."

At Rabba, a large, populous, and flourishing town, with a great slave-market, the river turns off to the eastward. A little below they passed the mouth of a river of considerable size, which entered the Quorra from the northeast. Lower down is Egga, a town of two miles in length, populous, and the people clothed with Benin and Portuguese stuffs, from whence it is inferred, that they have a communication with the sea-coast,—the more probable, as their canoes are large, and have a shed in the middle,

legged plover, and a hundred species of, to me at least, unknown water-fowl, were sporting around me, and it was long before I could disturb the tranquillity of the dwellers on these waters by firing a gun. The soil near the edge of the lake was a firm, dark sand; and as a proof of the great overflowings and recedings of the waters, even in this advanced dry season, the stalks of the gussub of the preceding year were standing in the lake more than 40 yds from the shore. The water is sweet and pleasant and abounds with fish." It is about 10 miles in length and 150 in breadth, and receives a large river from the west called the *Shary*, and another from the south called the *Shary*.

4. *Climate*. This country being comprised between the parallels of 8° and 17° N. it must necessarily have a very warm climate. The more elevated parts, however, are temperate. The rainy season, which begins in June, is ushered in by tornadoes; it continues till November, and ceases also with tornadoes.

5. *Minerals*. Many parts of this country are productive in gold; but it does not appear that any mines have been wrought by the negroes. After the annual inundations have subsided, great numbers of people are employed in collecting the mud brought down by the streams from the mountains. By an operation somewhat tedious, the small particles of gold generally called *gold dust* are separated from the mud and sand; this is done by repeated washings, the labor of which is performed by women.

6. *Natural Productions*. Nigritia, like all tropical countries, abounds in fruits; but it seems to be deficient in several of the species, which are found elsewhere, in the same latitude. Park did not observe, here, either the sugar-cane, the coffee, or the cocoa. The pine-apple was likewise unknown. The few orange and banana trees, near the coast, were supposed to have been introduced by the Portuguese. The most remarkable productions of this country, are the *lotus*, which furnishes the negroes with a sweet liquor and a sort of bread; the *shea*, a tree like an oak, the fruit of which, dried in the sun and boiled in water, yields a species of vegetable butter, which Park thought superior to that of cow's milk; various gum-bearing trees, and the gooroo, or Sudan nut, called by the Arabs the Sudan coffee, are also valuable trees.

7. *Animals*. The *Lion*, which is common to almost every part of Africa, grows, here, to a very large size. Major Denham furnishes us with the following anecdote;—



A Lion approaching his prey.

The skin of a noble lion was sent me by the sheik, which had been taken near Kabshary, measuring, from the tail to the nose, 14 feet 2 inches. He had devoured 4 slaves, and was at last taken by the following stratagem;—the inhabitants assembled together, and with loud cries and noises, drove him from the place where he had last feasted; they then dug a very deep blaqua, or circular hole, armed with sharp-pointed stakes; this, they most cunningly covered over, with stalks of the gussub; a bundle of straw, enveloped in a tobe, was laid over the spot, to which a gentle motion, like that of a man turning in sleep, was occasionally given, by means of a line carried to some distance. On their quitting the spot, and the noise ceasing, the lion returned to his haunt, and was observed watching his trap for 7 or 8

under which the owners and their families live. The river now took a southerly direction, and, at the distance of three or four days' navigation, was joined by another river nearly as large as itself, falling in from the north-eastward. This stream was also in a state of inundation, and from two to three miles in width. It was called the *Tahadda*.

Below the junction of the *Tahadda* the *Quorra* passes through the mountains, which appear to increase in height towards the southeast quarter, and probably terminate in those lofty peaks which are seen from the *Bight of Benin*, and have been found by trigonometrical measurement to be from twelve to thirteen thousand feet

high. Having cleared the mountain pass, the voyagers arrive at a town called *Kirree*, at which place the great delta of the *Quorra* may be considered to commence, extending southwesterly to the mouth of the river *Beni*, and south-southeast to that of *Old Calabar*, the distance between these two mouths being about two hundred and forty miles, and that from *Kirree* to the mouth of the river *Nun*, about the same. This great delta is intersected with numerous branches of the *Quorra*, the banks generally overflowed, and the mangrove trees growing in the water; the whole surface low, flat, and swampy, abounding with creeks.



Park meeting the Lion.

but my horse was too much fatigued ; so we rode slowly past the bush, from which the animal had given us the alarm. Not seeing anything myself, however, I thought my guide had been mistaken, when the Foulah suddenly put his hand to his mouth, exclaiming *Soubah an allahi*, (God preserve us !) and, to my great surprise, I then perceived a large red lion, at a short distance from the bush, with his head crouched between his fore paws. I expected he

hours, — by degrees approaching closer and closer ; and, at length, he made a dreadful spring on his supposed prey, and was precipitated to the bottom of the pit. The Kabsharians now rushed to the spot, and before he could recover himself, dispatched him with their spears."

Mr. Park gives us the following account, in his first expedition to Africa ; — "As we were crossing a large open plain, where there were a few scattered bushes, my guide, who was a little way before me, wheeled his horse round in a moment, calling out something in the Foulah language, which I did not understand. I inquired, in Mandingo, what he meant ; *wava bili billi* (a very large lion), said he, and made signs for me to ride away ;



Giraffe.

would instantly spring upon me, and instinctively pulled my feet from the stirrups, to throw myself on the ground, that my horse might become the victim, rather than myself. But it is probable the lion was not hungry, for he quietly suffered us to pass, though we were fairly within his reach. My eyes were so riveted upon this sovereign of beasts, that I found it impossible to remove them, until we were at a considerable distance."

That beautiful animal, the *Giraffe*, or *Camelopard*, is also common, according to the following relation of Denham ; — "On the 11th, we arrived at Showy, after a very tedious march, and losing our way for 3 hours ; the woods are, indeed, most intricate and difficult ; and, as all the Shouaas had moved up towards Barca Gana, we could get no guides. We saw 5 *Giraffes* to-day, to my great delight ; they were the first I had seen alive, and, notwithstanding my fatigue and the heat, Bellal and myself chased them for half an hour ; we kept within about 20 yards of them. They have a very extraordinary appearance, from their being so low behind, and move awkwardly, dragging, as it were, their hinder legs after them ; they are not swift, and are unlike any figure of them I ever met with."



Hippopotami in the lake.

lent thunderstorm, to our great disappointment, prevented our witnessing so novel a

species of sport. The flesh is considered a great delicacy. On the morrow, we had a full opportunity of convincing ourselves, that these uncouth and stupendous animals are very sensibly attracted by musical sounds, even though they should not be of the softest kind ;—as we passed along the borders of Lake Muggaby, at sunrise, they followed the drums of the different chiefs the whole length of the water, sometimes approaching so close to the shore, that the water they spouted from their mouths, reached the persons who were passing along the banks. I counted 15 at one time, sporting on the surface ; and my servant, Columbus, shot one of them in the head, when he gave so loud a roar, as he buried himself in the lake, that all the others disappeared in an instant.” The elephants of this country are exceedingly fierce ; they are sometimes seen in droves of 150 together. Panthers, leopards, and antelopes, are also natives of this country. Reptiles are numerous.

8. *Bornou*. The kingdom of Bornou appears to be the most important of the sovereignties, respecting which we have any distinct knowledge. It is bounded on the north by Khanem and the Desert ; on the east, by Lake Tchad ; on the south, by Mandara and Loggun ; and on the west, by Houssa. It lies between 10° and 15° N. latitude, and 12° and 18° E. longitude. The whole country is flat, and the greater part is covered with thick underwood, high, coarse grass, and parasitical plants. The towns are, in general, well built, surrounded by walls, 30 or 40 feet in height, and 20 feet thick. *Kouka* is the capital, and *Birnie* is the residence of the sultan.

The other towns are *Old Birnie*, *Kouka*, and *Angornou*. At *Kouka*, Denham and Clapperton attended the Sheik of Bornou, and made him a present. There is a trade in the ex-



Sheik of Bornou.



Denham and Clapperton with a Caravan.

portation of gold-dust, slaves, horses, ostrich-feathers, salt, and civet. The slaves are procured from the neighboring districts to the south, where a regular system of slave-hunting is carried on. The Bornouese manufacture the iron, which their country produces, into rude tools. Of their hemp, they make a sort of coarse linen ; and of cotton, a kind of cloth, which is dyed blue, and highly valued. They also manufacture carpets, for coverings to their horses and tents, of wool, and the hair of camels and goats. They trade with Tripoli and Fezzan, by caravans, which proceed across the desert. It was in this direction, that Denham and Clapperton penetrated to the country, and gave the first distinct information of it to the world.

Bornou abounds in domestic animals, such as cows, sheep, goats, and horses, camels and buffaloes. Bullocks are a medium of trade for everything ; and 100 or 150 of them are given for a good horse. Abundance of fowl are reared, and hives of bees are extremely plentiful. No vegetables are raised, except onions ; nor any fruit, save a few limes. A species of small grain, called gussub, is cultivated, which is boiled to a paste, and eaten with melted fat.

The population was estimated, by Denham, at 5,000,000 ; and when that traveler visited the country, the sultan had an army of 30,000 cavalry, and 9,000 infantry. The appearance of a body of these troops, is thus described, in his approach to the capital. “ I rode still onwards, and on approaching a spot less thickly planted, was not a little surprised to see, in front of me, a body of several thousand cavalry drawn up in a line, and extending right and left, as far as I could see ; and, checking my horse, I awaited the arrival of my party, under the shade

of a wide spreading acacia. The Bornou troops remained quite steady, without noise or confusion; and a few horsemen who were moving about in the front giving directions, were the only persons out of the ranks. On the Arabs appearing in sight, a shout or yell was given by the sheik's people which rent the air; a blast was blown from their rude instruments of music equally loud, and they moved on to meet Boo Khaloom and his Arabs. There was an appearance of tact and management in their movements which astonished me; three separate small bodies from the centre and each flank kept changing rapidly towards us, to within a few feet of our horses' heads, without checking the speed of their own, until the moment of their halt, while the whole body moved onwards. These parties were mounted on small, but very perfect horses, who stopped and wheeled from their utmost speed, with great precision and exactness."

9. *Begharmi*. This is a large and fertile region, lying between Darfour on the east, and Bornou on the north. On the north it is bounded by deserts of dry sand, which in the spring are frequented by herdsmen. On the south are many black tribes. The inhabitants of this country have long maintained a fierce war with Bornou.

10. *Mandara*. This district lies south of Bornou. The sultan resides at *Mora*, 180

miles from Kouka. Major Denham passed through a town in this country called *Dee-goa*, with 30,000 inhabitants. The mountains here furnish abundance of iron. The principal towns are 8 in number, and all stand in a valley. The accompanying representation of the sultan of Mandara and his principal officers, was drawn by the British travelers.

11. *Loggun*. This country was discovered by Dr. Oudeney and his companions. It lies upon the Shary, a river flowing into Lake Tchad, and which these travelers traced above 40 miles, and found it to be half a mile broad. Amid the furious warfare of the surrounding states, the inhabitants of this country have steadily cultivated



"The Sultan of Mandara and his principal officers."

peace. They are industrious, and work steadily at the loom. Their cloth is steeped thrice in a dye of indigo, and laid upon the trunk of a tree, and beaten with wooden mallets till it acquires a most brilliant gloss. They have a coin of iron. The people are remarkably handsome and healthy.

12. *Fellatah Kingdom*. This territory lies west of Bornou, and comprises Houssa, Zegzeg, Kano, Cashna, and other districts more or less in subjection to the Fellatahs, a warlike and predatory nation. The country is watered by the Yeou. *Kano*, in a highly cultivated and populous district, contains from 30,000 to 40,000 inhabitants, of whom a great proportion are slaves; it is famed all over Central Africa for dyeing cloth, and it is the commercial emporium of Central Africa. The negroes here are exceedingly polite and ceremonious. The district of *Cashna* is separated from Kano by a stream flowing to the west; its capital is noted for its fairs, which make it a commercial entrepot between Egypt and Fezzan, and Southern Nigritia; the chief articles of trade are slaves and salt.

The city of *Soccatoo*, the capital of the Fellatah dominions, stands on the river, dividing Cashna from Kano, and is thus described by Clapperton. "It occupies a long ridge which slopes gently toward the north, and appeared to me the most populous town I had visited in the interior of Africa, for unlike most other towns in Houssa, where the houses are thinly scattered, it is laid out in regular, well-built streets. The houses approach close to the walls, which were built by the present sultan in 1818, the old walls being too confined for the increasing population. The wall is between 20 and 30 feet high, and has 12 gates, which are regularly closed at sunset. There are two large mosques, besides several other places for prayer. There is a spacious market-place in the centre of the city, and another large square in front of the sultan's residence. The dwellings of the principal people are surrounded by high walls, which inclose numerous coozes, and flat-roofed houses, built in the Moorish style, whose large water-spouts of baked clay, projecting from the eaves, resemble a tier of guns. The

necessaries of life are very cheap, butcher's meat is in great plenty, and very good. The exports are principally civet and blue check tobes. The common imports are brought from Ashantee, and coarse calico, and woolen cloth in small quantities, with brass and pewter dishes, and some few spices from Nyffee. The Arabs from Tripoli and Gbadamis bring unwrought silk, attar of roses, spices, and beads. Slaves are both exported and imported. A great quantity of Guinea corn is taken every year by the Tuaricks, in exchange for salt. Population about 80,000.



Inhabitants of Nigritia.

the kingdom, there is a regular system of taxation, which is paid in horses, slaves, cloth, cowries, lead ore, cattle, &c.

13. *Timbuctoo*. This city, which has so long been the object of intense and unsatisfied curiosity to Europeans, was first visited during the present century, by Adams, an American, Laing, an Englishman, and Caillié, a Frenchman. Adams was shipwrecked on the coast and carried to *Timbuctoo* as a slave in 1810; his relation, however, is not generally received as authentic. Laing reached the city upon his travels in 1826, but was murdered on his return. Caillié visited *Timbuctoo* in 1827, returned to France and published a narrative of his travels, which, though doubtful on many points, is too interesting to be disregarded. According to this traveler, the city stands about 8 miles from the Joliba or Niger, and forms a sort of triangle, measuring 3 miles in circuit. The houses are large, but not high, consisting entirely of a ground floor. They are built of round bricks baked in the sun. The streets are clean, and sufficiently wide to permit three horsemen to pass abreast. Both within and without the town are many circular straw huts, inhabited by poor people and slaves. The following sketch of *Timbuctoo* is presented by Caillié, as drawn by him from an eminence overlooking the



Inhabitants of Timbuctoo.



View of Timbuctoo.

city. It has no walls, and is surrounded by an immense plain of yellowish white sand. Its population is 10 or 12,000. The inhabitants are principally Moors of the Kisser nation, and carry on a trade in salt. The king or governor is a negro. The State, once powerful, is now tributary to the Tuaricks.

14. *Borgoo*. This kingdom lies to the east of *Dahomey* in Guinea, and is 11 days' journey

from north to south, and 30 from east to west. It is watered by the Niger, Moussa, and Oli. It comprises the districts of Boussa, Kiama, Wawa, and Niki. The city of *Boussa* stands on an island in the Niger; it is walled, and has a population of 10,000. Here Park lost his life. The city of *Kiama* contains 30,000 inhabitants, who are looked upon as the greatest thieves and robbers in all Africa. The city of *Wawa* has a population of 18,000.

15. *Yowriba*. This kingdom joins the preceding. The inhabitants cultivate cotton and indigo, and carry on the slave trade. *Eyeo*, the capital, stands on the slope of a range of hills, and is surrounded by a clay wall 15 miles in circuit. The houses are of clay, with thatched roofs. There are 7 markets in the city; and a trade is carried on with the coast of Guinea.

16. *Bambarra*. This kingdom lies to the west of Senegambia, and north of the Kong mountains. It is 450 miles in length, and 300 in breadth. The Niger traverses it from west to east. The inhabitants are negroes, and some Moors. *Sago* is the capital. *Jenne*, formerly included within this kingdom, is now under the dominion of an independent Fellatah chief. This city was visited by Caillié, and is described by him as 2½ miles in circumference, and surrounded by a wall 10 feet in height. The houses are built of bricks dried in the sun; they are all terraced, and have no windows outward, but the air is admitted from an inner court. The streets are crooked, and sufficiently wide for 8 or 9 persons to walk abreast; they are swept almost daily. The town is full of bustle and animation, being the resort of numerous caravans. The population is 8 or 10,000.

17. *Darfour*. This country, consisting merely of a group of oases in the desert, is bounded north by the Desert of Zahara, and east by Kordofan. Its surface is highly diversified, and the climate partakes of that of the desert. The *Bahr el Abiad*, the head stream of the Nile, flows through the southern part. The inhabitants raise millet, rice, maize, sesame, and beans. The date, palm, and tamarind are found here, and tobacco grows wild. A great trade is carried on by caravans with Egypt. The exports are slaves, which are taken in the countries to the south, camels, ivory, the bones, teeth, and hides of the rhinoceros and elephant, ostrich, feathers, gum, pimento, &c. There is a trade also with Mecca. *Cobbe*, the chief town, has 6,000 inhabitants. The people of Darfour are negroes, resembling those of Bornou, and there are many Arabs, retaining their distinctions of color, feature, and manner. They are principally agricultural, and the king commences the labors of the seed time, by planting in person. A large kind of grain called *kassab*, is much used as food. The dwellings are simple, having walls of mud or clay. The religion is the Mahometan.

18. *Kordofan*. This district lies between Darfour on the west, and Sennaar on the east, and was alternately subject to those States until it was conquered by the Egyptians in 1830. On the south it is bounded by a chain of volcanic mountains. It is poorly watered, and ill cultivated. The chief produce is maize and dourra. The inhabitants weave cotton stuffs, forge iron, and carry on a trade in gold dust.*

* In 1830, the viceroy of Egypt, Mehemet Ali paid a visit to his States in Nigritia, and the following curious passages are extracted from the official journal of his tour:

"The inhabitants of Nigritia are Musulmans of the sect Malitu, but the slaves are of no religion. They are divided into Beledi (inhabitants of towns), Bevadi (inhabitants of the plain), and Gebeli (inhabitants of mountains). They are generally in a state of simple nature, wild and wandering. Those who have no *meriss* or *bulbul* (the beverage *bouza*) eat the bark of trees. Nevertheless, they are fat and robust. A piece of stinking skin covers them in front.

"Life, that precious gift of heaven, is passed by them in ignorance; their thoughts tend to naught but the sale of their fellow creatures. They pay no attention whatever to agriculture, and those who have a sorry bed, formed of some pieces of wood (which is called *sucaril*), or can afford to drink *bouza*, are envied by their fellows, who come at night to rob them, the inhabitants of the interior committing outrages on those who dwell on the borders of the Nile. Those latter believed, that the arrival of his Highness would be favorable to their desire of vengeance, and they looked to Ahmet Pasha, declaring, that they wished to engage with their enemies. This governor-general, aware of the pious intentions of his Highness, who was unwilling to shed blood, proceeded towards the Gebel Tag, and, after having examined the dispositions

of the natives, saw that a furious and cruel engagement would be the result. He, therefore, thought it best to order the retreat of his troops, but they feeling their self-love wounded by the attitude of the negroes, begged his Excellency to allow them to give them a little lesson. Ahmet Pasha then authorized a chief of battalion to attack them, upon which that officer attacked Mount Bakrih, a dependency of the Gebel Tag, and captured 541 individuals, men, women, and children, together with all their cattle.

"However, as nothing contrary to humanity was desired, these 541 were supplied with provisions, their cattle were restored, and they were set at liberty. Their sheiks were clothed to the number of five, and returned to their mountains contented and joyful.

"At the Cordofan, in compliance with ancient usage many negroes are enslaved, one by another. His Highness the Viceroy issued a severe order, in pursuance of which all were set at liberty, and the choice was left them of settling on the borders of the Nile or of returning to their own country without impediment.

"His Highness at the same time ordered, that henceforth all the inhabitants, who had cause of complaint one against the other, instead of taking justice in their own hands, should refer their complaints to the governor, who had formal instructions to treat them with humanity and justice, according to the laws. This order extends to Beledi, Bevadi, and Gebeli, without exception.

19. *Inhabitants of Nigritia.* These are either negroes or Moors, as the mixed races of Arabs are generally called. The Moors are gradually gaining an ascendancy over the more timid blacks. They resemble the mulattoes of the West Indies more than the Moors of Barbary. Park describes them as having wild and staring eyes, like a "nation of lunatics." The negroes, in the various tribes or nations, are more or less dark, but in general, they are perfectly black. Though subject to few diseases, they do not attain to old age. In different parts the African physiognomy is much diversified; and the thick lips, and broad, flat nose, often give place to features of the European cast. In various nations the faces, or limbs and body, are tattooed, in lines made by gashes.

20. *Dress.* The dress of the Moors is somewhat like that of Barbary, and the turban is generally the mark of a Mahometan believer. The dress of the African nations is various; generally it is only a shirt or other garment of cotton. Many people have but a strip of covering about the waist, and numbers have not even that. In Bornou turbans are worn, and the women are exceedingly neat in their persons and dress. The following cut represents a Shoua man and woman. The Fellatahs and Bornouese are the most remarkable among the negroes.



Shoua Man and Woman.

"Before the departure from Cairo a message had arrived from his Excellency Ahmet Pasha, informing his Highness, that the king of Abyssinia had sent a letter with presents, and that Ahmet Pasha had judged it right to send in return other presents worthy of Egypt, and a letter.

"In consequence of this intelligence his Highness had ordered at Cairo further presents, more conformable to his own grandeur and munificence, with the intention of sending them to Abyssinia by that old faithful servant of Egypt, Colonel Rustem Bey. Having on his arrival at Cartoum made known his intention among the sheiks, his Highness was much astonished to see them look at each other and smile. The foreign Vaissier, an old servant of Egypt, then said, 'The Abyssinians are savages, and it would be exposing yourself to treat with them thus.'

"These engineers were sent to visit the gold mines as far as Houri Deheb, opposite Fasankor, near the banks of the Nile. According to their report they found, that the gold of these places is not inferior to that of higher parts.

"On the 17th day of Zilead and the eighth of his stay at Fasankor, his Highness the Viceroy set out by the shortest way, and found himself at his journey's end in five hours. His tent was pitched immediately, and orders were issued, that as at this place a palace, barracks, houses, bazars, magazines, vineyards, and gardens were forming, and the whole was being surrounded by walls, to erect a new city under the name of Mehemet Ali, every one should be allowed to establish himself there freely. This city was to be built in such a manner as to be unequalled by any other in Nigritia.

"The mountains and valleys of Nigritia abound in all kinds of curious animals. There are birds with four

The latter are described as ugly, simple, and good-natured, but utterly destitute of intellectual culture; only a few of the great doctors can read the Koran; a writer is held in the highest estimation, but his only compositions are a few words written on scraps of paper, to be worn as amulets. In the absence of all refined pleasures, various rude sports are pursued with eagerness, such as boxing and wrestling; gaming is also a favorite sport. The Bornouese cavalry are covered with mail and iron plate, and their horses are also cased in armor; they are armed with long spears, and are accompanied to war by bowmen and spearmen on foot; the latter carry large wooden shields.

The general dress in the Bornouese coun-

wings, and others of every shade of color. Vegetation offers the vine and wild fig tree, from the branches of which the birds, with their varied and melodious warbling, cheer and entertain the traveler. Vegetation is surprisingly abundant and prolific; a single grain of seed generally multiplies from fifty to sixty fold.

"Cultivation is carried on at Dongolah by means of small instruments, such as pickaxes, &c., but higher up even these are unknown, the only utensil being a small pointed stick, which serves to make holes in the earth for the reception of the seed. The doura and cotton grow with extraordinary rapidity, the plant of the latter exceeding the height of a man; while in Egypt, notwithstanding the care bestowed on the cultivation of this shrub, it is far from thriving as in Nigritia, where it is evident, that the plantations will produce an excellent result.

"Notwithstanding so many gifts of nature, strange to say, these people have, from the creation of our father Adam, remained in a state of inaction. This misfortune is owing to the circumstance, that no person has ever thought of them; but such is now no longer the case, for by this very misfortune they have attracted the special attention of his Highness, who has hastened to their assistance as the prophet Elijah, and has consoled and delighted a people, who have for ages vegetated in the shadow of death.

"His Highness considers the region of the Nile to be a very fine country, but thinks that Nigritia will, in a hundred years, appear like a new America. The beauty of the country is wonderful; the air is so pure and favorable, that his Highness the Viceroy, who is seventy-one years of age, appeared to have become as young as twenty five."

try, is a loose robe, or shirt, of the cotton cloth made here, which is often fine, and beautifully dyed; and high rank is indicated by 6 or 7 of these, worn one above another. Many of the people, however, have no dress but a girdle round the waist, and a piece of cloth wrapped round the head. A protruding belly, and a huge, misshapen head, are the two features, without which, it is vain to aspire to the rank of a fine gentleman; wadding is profusely employed by the courtiers, to produce the one, and cloth is wrapped round the head, in fold after fold, to obtain the other; thus padded and stuffed, a Bornouese courtier adds still further to his bulk, by wearing 10 or 12 robes of cotton or silk; and the whole of this monstrous creature is decked with numberless charms, enclosed in green leather cases.

A Bornouese belle decorates her person by plaiting the hair, and attaching to it strings of brass or silver beads, inserting pieces of amber or coral, in the nose, ears, and lip, and besmearing her face with oil. In the great market of Angornou, there is plenty of their principal grain, called gussub, much wheat and rice, bullocks, sheep, and fowls; but no vegetables, except onions; and no fruits, of any kind, are to be seen. A similar picture of Fellatah civilization might be drawn, but the traits are nearly the same, and it is unnecessary to repeat the description.

21. *Language.* The language is the Arabic, and there are various separate African dialects. The Mandingo is the most generally diffused of the African languages, but the Arabic will probably settle into the general medium of communication.

22. *Manner of Building.* The Moors, who do not live in tents, build their houses after the manner common in Barbary, and keep them neatly whitewashed. The architecture of the negroes is rude; the houses are low and small, and made generally of mud or wicker-work. They are mostly thatched.

23. *Food and Drink.* The food of the Central Africans is simple; bread, which so much supports life in most countries, that it may be called its *staff*, is hardly known here; a paste, however, like hasty-pudding, is common, and also the *kouskousou* of Barbary, under the name of *kouskous*. Much grain is raised, but few esculent vegetables; generally, only a few onions and tomatoes. Little fruit is raised by cultivation. Poultry is general. Salt, from its scarcity, becomes a luxury, beyond the reach of the poor, and children may sometimes be seen sucking it, as sugar is eaten in other countries. To say of a man, that he eats salt with his food, is equivalent to calling him rich. The breakfast hour is generally about daybreak, and 2 is the hour for dinner; supper is taken late. Tobacco is much used, in smoking and otherwise. Snuff is not taken in the nostrils, but chewed with a certain plant. The Moors and the negro Mahometans, drink nothing but water, though *pitto*, or ale, is generally in use with all others. In some towns, all the inhabitants seem addicted to intoxication. It tastes much like the English ale, and a bitter plant is infused, in the place of hops.

24. *Diseases.* The most common diseases are fevers, fluxes, blindness, leprosy, and the guinea-worm.

25. *Traveling.* The mode of traveling from one kingdom to another, is by kafilas or small caravans, or associations. Duties on merchandise are paid in the countries through which a kafila passes.

26. *Character, Manners, and Customs.* In the African character, timidity and gentleness are obvious traits; and this it is, which, together with their small states, and the commerce of Christian nations, has reduced Africans to slavery in every quarter of the globe.

The negroes are cheerful, kind, and generally pliable. Their pursuits are pastoral or agricultural, though they are often engaged in petty wars, in which they show little mercy. The females are uniformly kind and compassionate, and almost every European



Negroes, dancing.

traveler in this country, has owed his life to their assistance.* The Africans are generally

* The following is from Park's Travels.—"I waited more than two hours, without having an opportunity of crossing the river; during which time, the people who had crossed, carried information to Mansong, the king, that a white man was waiting for a passage, and was coming to see him. He immediately sent over one of his chief mer-

who informed me, that the king could not possibly see me, until he knew what had brought me into his country, and that I must not presume to cross the river, without the king's permission. He, therefore, advised me to lodge at a distant village, to which he pointed, for the night; and said, that, in the morning, he would give me further in-

much attached to their mothers ; " Strike me ! but do not curse my mother," is sometimes said, in their quarrels, when either party would set a limit to exasperation. The Mandingo mothers instil early, in their children, a reverence for truth ; the foundation of all virtue. The principal expressions that grief, for the loss of her son, extorted from an African mother, were, " He never told a lie, he never told a lie." Travelers find a universal disposition to steal, but this is exercised only towards strangers, and it is the fault of most rude people.

The slaves in Africa are supposed, by Park, to be to the free, as 3 to 1. The system of servitude is the scourge of Africa, no less than the curse of America. There is no safety for liberty ; wars are made between neighboring tribes, from no other motives than to make captures, though the aggressors commonly offer the excuse, that their victims are cannibals ; as if any crime could be greater than kidnapping.



Battle between two Negro nations.

Villages are attacked and burnt, and the people led into captivity ; the huntsman is kidnapped in the wood, and the husbandman in the field. The domestic slaves, however, are well treated, and generally live as members of the family. Among the Fellatahs, an agricultural people, they work half the day in the fields, and have the remainder to themselves. There are 4 general causes of servitude. Captivity, surrender, crimes, and insolvency. The captured, as well as their descendants, are slaves. But in famine, which is not of rare occurrence, men not only sell themselves, but their children, to obtain present support. Some crimes, in several places, subject the convicts to slavery, and insolvency is as hardly visited. In Bornou, however, the laws are more merciful and just. There, the creditor may take pos-

session of his debtor's property, pay himself, and reserve commission for his trouble. If the debtor refuses his consent, he is pinioned and laid upon his back till he relents. When the property will not pay the debt, the insolvent pleads his poverty, and the *cadi* says, " God send you means," to which the bystanders respond, " amen," and the debtor is free. The creditor may, however, at any time, have his debtor's property, even to the second shirt, or superfluous red cap.

Among a simple and ignorant people, we may expect to find some customs, that may seem as ridiculous in polished nations, as European manners in Africa. Thus, at Bornou, it is a great recommendation, at court, to have a protuberant belly. It is considered the type of abundance, and honored accordingly. All merit, however, has counterfeits, and the aspiring courtier, whom a course of fattening diet cannot enlarge, deprived of the reality, indulges in resemblance. He stuffs himself with cushions, so that the belly is out of all proportion with

structions how to conduct myself. This was very discouraging. However, as there was no remedy, I set off for the village, where I found, to my great mortification, that no person would admit me into his house. I was regarded with astonishment and fear, and was obliged to sit all day, without victuals, in the shade of a tree ; and the night threatened to be very uncomfortable, for the wind rose, and there was great appearance of a heavy rain ; and the wild beasts are so very numerous in the neighborhood, that I should have been under the necessity of climbing up the tree, and resting among the branches ; about sunset, however, as I was preparing to pass the night in this manner, and had turned my horse loose, that he might graze at liberty, a woman, returning from the labors of the field, stopped to observe me ; and, perceiving that I was weary and dejected, inquired into my situation, which I briefly explained to her ; whereupon, with looks of great compassion, she took up my saddle and bridle, and told me to follow her. Having conducted me into her hut, she lighted up a lamp, spread a mat on the floor, and told me I might remain there for the night. Finding that I was very hungry, she said she would procure me something to eat. She accordingly went out, and returned in a short time, with a very fine fish, which, having caused to be half

broiled upon some embers, she gave me for supper. The rites of hospitality being thus performed towards a stranger in distress, my worthy benefactress, pointing to the mat, and telling me I might sleep there without apprehension, called to the female part of her family, who had stood gazing on me all the while, in fixed astonishment, to resume their task of spinning cotton, in which they continued to employ themselves great part of the night. They lightened their labor by songs, one of which was composed extempore, for I was myself the subject of it. It was sung by one of the women, the rest joining in a sort of chorus. The air was sweet and plaintive, and the words, literally translated, were these. " The winds roared, and the rains fell. The poor white man, faint and weary, came and sat under our tree. He has no mother to bring him milk ; no wife to grind his corn. Chorus. Let us pity the white man ; no mother has he, &c. &c." Trifling as this recital may appear to the reader, to a person in my situation the circumstance was affecting in the highest degree. I was oppressed by such unexpected kindness, and sleep fled from my eyes. In the morning, I presented my compassionate landlady with 2 of the 4 brass buttons, which remained on my waistcoat, the only recompense I could make her."

the members, and in riding it hangs over the pommel of the saddle. It is the fashion, also, at Bornou, to wear seven or eight loose garments, and a turban of vast dimensions. At the English court, long trains, and hooped petticoats, distort the human figure little less than these fashions at Bornou.

Among the Arabs, it is the female whose estimation is much increased by bulk. To be fat among them is to be beautiful, and mothers cram their female children as geese are fattened in England. The process, though painful, and often enforced by blows, is generally successful; and a perfect beauty with the Moors is, according to Park, "a load for a camel."

The Moors, which have so much sway in Africa, may be described as cruel, bigoted, malicious, and treacherous; studying mischief, according to Park, "as a science," and eminently successful in their studies. They live by plunder and extortion. They have little cheerfulness and few amusements. The chief amusement of the negroes is dancing, which they often keep up, like their enslaved countrymen in America, during the whole night. It is a pleasing sight to see a whole village, thus engaged by moonlight, under the trees. The instruments most in use are the guitar with 3 strings, a harp with 18, and a smaller one with 7. There are two kinds of drums, one of which is large, and used to spread an alarm. Some of the dances are peculiar. In Bornou, the female dancers suddenly turn their backs to each other, and thus meet with much violence, endeavoring to destroy each other's equilibrium. The successful one is much cheered. Just before the expected concussion, one dancer will sometimes step nimbly aside, and leave her opponent to seat herself with considerable force upon the ground. Sometimes, also, the smaller party, that would suffer in the shock, suddenly drops down, leaving the larger to tumble over her. The negroes engage much in wrestling, at which they are very expert, and would probably carry off the honors of any ring in Europe. They approach each other on all fours. Boxing is common; the blows are given with the right hand, and warded off with the palm of the left. It is a favorite trick with the boxer to get his antagonist's head under his arm, and to bruise it in that situation.

27. *Education, &c.* The education in Central Africa includes but the reading of the Koran in Arabic, and this degree of knowledge is rare. The religion is the Mahometan, which is rapidly spreading, and Fetishism, which includes a belief in charms, conjurations, and divination. The governments are many of them of a patriarchal kind, but undergo many changes; and deposed Sultans are said, by Denham, to be as common as bankrupts in Europe. The *dooty* is the magistrate of towns, and the place of assembling is the *bentang*, a stage, or sometimes a tree. The *palavers* are judicial meetings. In some places there are trials by ordeal.

28. *Industry, &c.* The inhabitants are much more civilized and industrious than the negroes of the coast, and they have formed large states with regular governments. Goldsmiths, weavers, tanners, blacksmiths, and other skilful artisans are found among them. Many of them hunt elephants and rhinoceroses for their teeth and horns, gather gums, collect gold, kidnap individuals of neighboring tribes, whom, with their other articles of merchandise, they barter for arms, silks, ornaments, salt, &c., with the caravans from Egypt, Barbary, Nubia, and the sea coast.

CHAPTER LXXVIII. WESTERN AFRICA.

1. *Boundaries, Extent, and Divisions.* This territory is bounded north by the desert of Zahara and Nigritia, east by Nigritia and unknown territories, and southwest and west by the Atlantic. Its limits are undefined, but it may be described in general terms, as extending from about 16° N. latitude, southward nearly to the tropic of Capricorn. The most general divisions under which the country is known, are those of *Senegambia*, *Guinea*, *Congo*, *Angola*, and *Benguela*; these include many subdivisions and independent districts.

2. *Senegambia.* This territory is the most northern of the districts of Western Africa. It is bounded north by the Desert, east by Nigritia, south by Upper Guinea, and west by the Atlantic. It is for the most part flat and sandy. Magnificent forests of tall trees are scattered over the face of the country. The palm, the cocoa, the tamarind, banana, fig, date, and the butter tree are all indigenous. Oranges, lemons, and limes also abound. Reptiles are numerous. The climate is exceedingly hot; the east winds, which reach this country after sweeping over the burning surface of Central Africa, are almost insupportable. During the whole year, the heat of the sun at noon is intense; the thermometer is sometimes at 131° at Senegal. From June to October, heavy rains fall. This region is watered by the *Senegal* river, which

rises in the mountains of Kong, and flows northwesterly into the Atlantic, after a course of about 1000 miles ; and by the *Gambia* and *Rio Grande*, which have the same origin and direction, but are inferior streams. On the coast is *Cape Verde*, the most westerly point of Africa. This region is divided into a great number of small states. The English, French, and Portuguese have some settlements and factories upon the coast ; the greater part of the country is now in the possession of three nations, who have conquered nearly all of the other tribes ; these ruling people are the Jalofs or Yalofs, the Mandingoes, and the Foulahs, or Fellatahs. Many of the Negro tribes of Senegambia are Mahometans, but there is also a great number who worship *fetiches*, that is, certain natural objects selected as objects of veneration, and there are some idolaters. The *Mandingoes* are the most industrious and most civilized of the Senegambia negroes ; they carry on an extensive trade with the Europeans and Americans on the coast, in gold, ivory, and slaves ; their women weave cotton and stuffs, which they dye with indigo ; and the men are good hunters, and cultivate the earth with some skill. They dwell in villages, and their houses are circular mud huts, with a conical roof of bamboo, thatched with leaves. The Mandingo is the commercial language of all this region. The *Foulahs* are the same race as the Fellatahs of the interior ; they are, like most negroes, gay, gentle, kind, and hospitable ; they raise indigo, maize, rice, &c., weave stuffs of wool and cotton, or pursue the chase ; some of them are wandering shepherds.

The *Jalof* states occupy the northwestern part of Senegambia ; they are governed by hereditary princes ; *Wallo*, *Caïor*, and *Jalof Proper*, are the principal states. The Jalofs are of a pure black color, with regular features, and they excel the Mandingoes in the manufacture and dyeing of cotton ; they are fearless hunters, skillful horsemen, and brave warriors.

The Mandingo states lie to the south of the preceding ; they are *Kaarta*, *Bambouk*, *Saloom*, *Kaboo*, &c., comprising the Soosoos, Biafaras, &c. ; the people of *Bambarra*, in Nigritia, are also Mandingoes.

The Foulah or Fellatah states are a sort of theocracies, being governed by elective spiritual princes, styled *almams*, or chiefs of the faithful. The principal are *Fouta Toro*, *Bondoo*, *Fouta Jallo*, of which the capital, *Teemboo*, has about 9,000 inhabitants, *Casso*, and *Fouladool*.

The French colony of Senegal, upon that river, consists merely of several factories or trading posts ; *St. Louis*, the principal town, has 6,000 inhabitants ; and *Goree*, upon the island of that name, 3,000, mostly slaves or free blacks. The English factories are upon the *Gambia* ; *Bathurst*, is the principal station. The Portuguese have some slave-trading posts among the Bissagos islands, of which *Cacheu* is the chief station. The principal articles of trade carried on by the two former settlements are spirituous liquors and tobacco, in return for which, they receive gums, bees' wax, gold dust, and ivory.

3. *Guinea*. The country is bounded north by Senegambia and Nigritia, east by unknown countries, south and west by Cimbebas and the Atlantic. It forms a crescent around the Gulf of Guinea, and is intersected by the equator. It is separated from Nigritia and Senegambia by the mountains of Kong. The great river *Niger*, or *Quorra*, enters this country from Nigritia, and flows into the Atlantic by several mouths, which intersect a tract of country 240 miles in width along the coast. The principal of these mouths are known by the names of the rivers, *Nun*, *Benin*, *Formosa*, *Old* and *New Calabar*. The other rivers are the *Zaire*, or *Congo*, which flows into the Atlantic by so wide a mouth, and with so deep and rapid a current, that it was at one time imagined to be the outlet of the Niger. Its origin is not known. The *Coanza*, which also rises in unknown regions, flows northwesterly into the Atlantic.

This country is commonly regarded under two general divisions, *Upper* and *Lower Guinea*. These have a great number of subdivisions. Upper Guinea consists of the *Grain Coast*, *Liberia*, the *Ivory Coast*, *Gold Coast*, *Slave Coast*, or *Whidah*, *Benin*, *Calabar*, *Biafra*, *Gaba*, and *Calbangos*, which are all upon the coast, and *Kooranko*, *Kong*, *Dugomba*, *Killinga*, *Sarem*, *Buntakoo*, *Ashantee*, *Dahomey*, and *Eyees*, in the interior. Lower Guinea comprises *Congo*, *Angola*, *Benguela*, *Ergoyo*, *Cacongo*, *Loango*, *Mayemba*, *Sette*, and *Anziko*.

The English colony of *Sierra Leone* was founded in 1778, with the benevolent purpose of suppressing the slave trade, and introducing civilization into this dark corner of the earth. But the soil in the neighborhood is exceedingly sterile and unproductive, and the colony has made but slow progress. *Freetown* is the chief place ; it contains about 4,000 inhabitants, several schools, &c. In 1828 a settlement was made on *Fernando Po*, a fertile and healthy island in the gulf of Guinea, but this island is claimed by the Spaniards, who refuse to cede it to the English. The *Grain* or *Pepper Coast* is considerably frequented for Guinea pepper, and

only production. The *Ivory Coast* has no good harbors, but is visited in boats for its trade in ivory. Upon the *Gold Coast* are some Dutch settlements, of which *El Mina* is the capital; it has a population of 15,000. The chief British settlement in this quarter is *Cape Coast Castle*, which contains 8,000 inhabitants. The *Slave Coast* is a low swampy country, covered with a luxuriant and perpetual vegetation; it is governed by a viceroy under the king of Dahomey. The slave-trade upon this coast has of late been greatly checked.

The American colony of *Liberia* was founded by the American Colonization Society, in 1821, for the purpose of facilitating the gradual emancipation of slaves in the United States. The spot selected for the first settlement was a little elevated peninsula, lying between the mouth of the river Mesurado or Montserrado and the sea, and terminating in a cape of the same name. After suffering much from the hostility of the natives, with whom it had to sustain several severe conflicts, this little colony has at length obtained tranquillity, and is in an exceedingly prosperous condition. The territory over which its jurisdiction now extends, lies between Cape Mount and Cape Palmas, or between 4° and 7' N. latitude; comprising the tract above mentioned under the name of the Grain Coast; it occupies about 225 miles of coast, with a breadth of from 20 to 30 miles inland. The climate is found to be healthful, although emigrants are liable to be attacked by the country fever on their first arrival. Its fertile soil yields rice, cotton, coffee, sugar, indigo, banana, cassada, yams, &c. Camwood is abundant, and the timber is durable and well fitted for building. The natives are the *Deys*, an indolent and inoffensive people, occupying the coast on both sides of the Mesurado to the number of 1,000 or 3,000; the *Bassas*, also a peaceful but more industrious and numerous people further south; and the *Queaks* and *Condoes* in the interior. There are also scattered settlements of *Kroomen*, whose native country is near Cape Palmas, and who are a laborious and hardy race, acting as pilots, porters, and oarsmen for the trading vessels on the coast; they commonly speak English. The settlement on Cape Mesurado, which received the name of *Monrovia* is now a flourishing town, with about 2,000 inhabitants. *Caldwell*, *New Georgia*, and *Millsburg*, higher up the river, also present proofs of the independent and comfortable situation of the colonists. "From New Georgia to Millsburg," says an eyewitness in 1839, "a distance of 17 miles, the right bank of the river exhibits an almost continuous line of cultivated farms, many of them of considerable size. Millsburg stands on the St. Paul's, a large tributary of the Mesurado, and consists of a single street, about a mile and a half long, running parallel with the river. The town is pleasantly situated and exhibits a highly picturesque appearance. *Edina*, about 60 miles from Monrovia, on the river St. John's; *Bassa Cove*, which, after having been desolated by some hostile natives, has since been reoccupied, and the Maryland colony of *Harper*, a neat and thriving little village at Cape Palmas, are the other principal settlements. The colonists consist of free blacks, emancipated slaves, and recaptured Africans, taken from the slavers, to the number of about 4,000, beside whom about 1,500 of the natives have put themselves under the protection of the colony. Already neat frame or stone buildings have been erected for houses and warehouses, school houses have been provided and supplied with teachers, churches have been built, and a press set up, from which is issued a respectable newspaper. The native traders from the interior have visited the colony, and an active commerce is carried on partly in colonial shipping, and partly by American and European vessels. Palm oil, ivory, dye-wood, hides, wax, and pepper, are among the articles of export, in addition to the productions before enumerated.

Benin, or *Adou*. This State, of which our knowledge is very slight, embraces a great part of the vast delta of the Niger. The capital of the same name is a large, though not populous town, with about 15,000 inhabitants. *Bonny*, in one of the tributary States, is an important commercial town with 20,000 inhabitants. The manners and customs of the inhabitants appear to resemble those of the people of Ashantee and Dahomey.

The most important of the interior districts is the kingdom of *Ashantee*. It is about 800 miles in length, and 350 in breadth. The soil is fertile, and the country completely covered with vegetation. Sugar-cane, rice, the butter tree, pawpaws, ananas, and bananas are cultivated. The population is above 1,000,000, without reckoning the tributary nations, which are 22 in number. The inhabitants weave and dye cotton with considerable dexterity, and hold a trade with the coast in gold dust and vegetable butter. The immense forests of the country afford abundance of palm oil.

The metropolis, called *Coumassi*, is large and regularly built; it is insulated by a marsh, which contains many springs, that supply the town with water; and it is also encompassed by

a fine forest. The figure is oblong, and the circumference between trees and four miles; the principal streets are very long and wide. The walls of the houses are formed of stakes and wattle-work, filled up and coated with clay. They have gable-ends, and thick poles support a frame of bamboo, over which interwoven palm-leaves are placed for thatch. In general, they have only one floor, and, where they have two, the lower part is divided by a wall, to support the rafters for the upper room, which are usually covered with a frame-work thickly stuccoed with ochre. The doors consist of an entire piece of wood, cut with great labor out of the stems or buttresses of the cotton tree; and the windows are open wood-work, carved in fanciful figures and intricate patterns, and painted red. "The palace (says Mr. Bowditch) is an immense building, of a variety of oblong courts and regular squares, the former with arcades along one side, some of round arches symmetrically turned, having a skeleton of bamboo; the entablatures exuberantly adorned with bold fan and trellis work of Egyptian character. They have a suite of rooms over them, with small windows of wooden lattice, of intricate but regular carved work; and some have frames cased with thin gold. The squares have a large apartment on each side, open in front, with two supporting pillars;" and this kind of *proscenium* is a mark of distinction; for none but military officers, beside the king, are permitted to build in this mode. Chairs and stools embossed with gold, and beds of silk, are among the articles of royal furniture. The population of the capital is about 15,000.

The Ashantees appear to be the most powerful, commercial, and warlike of all the tribes of Western Africa; yet, until the beginning of the present century they were not known, even by name, to the Europeans. Since that period they have been visited by travelers from the coast. They have recently carried on hostilities against the British with remarkable success, and in 1823, they defeated, and totally destroyed a British army under Sir Charles McCarthy, the governor of the colony at Cape Coast Castle.

The kingdom of *Dahomey* lies to the east of Ashantee, and is bounded south by the gulf of Guinea. The soil is fertile, producing maize, millet, grain, potatoes, plantains, oranges, citrons, and other tropical fruits, with indigo, cotton, sugar, tobacco, and spices. The wind called *harmattan*, blows in this country for three months in the year; rains and hurricanes are periodical. The inhabitants have some skill in manufactures. They make good cloth, and dye it of various colors. Their smith work is quite respectable; they use a bellows formed of two goat skins, with a musket-barrel for a pipe; a stone is used for an anvil, and a round iron bar, a foot in length, for a hammer. With these tools they manufacture spears, cuirasses, and other weapons, carpenters' tools, bracelets, rings, &c. Cowries are used for money, and the king maintains a considerable standing army.

Loango was formerly a dependency upon that of Congo. The people are industrious, and not only occupy themselves in various arts, but engage also in commercial pursuits. The climate is remarkably warm, and a long, dry season regularly follows a long continuance of rain. The cocoa and banana thrive beside the more common fruit-trees; and the cotton plant and sugar-cane are cultivated with success.

Congo is bounded on the north by Loango, on the south by Angola, and on the east by the territory of the *Giagas*. The climate is extremely hot in summer; but the winters are as mild as the finest springs of Italy. The wild animals are elephants, lions, leopards, panthers, wolves, zebras, buffaloes, &c. The country is likewise infested with a variety of serpents, some of which are of a monstrous length and thickness; with rattlesnakes, vipers, scorpions, and venomous insects of various kinds, both flying and reptile. Among the insects the most wonderful are the *termites*, or white ants, which construct works in the most ingenious manner and apparently in a scientific form, and compose an orderly and well-regulated community. Their earthen structures are sometimes raised to the height of seven or eight feet, and appear like the huts of the natives. These little creatures not only destroy the fruits of the earth, but in the night surround beasts, and sometimes men, in prodigious swarms, and devour them in a few hours, leaving only the bones. This country was discovered, in 1487, by the Portuguese, who formed settlements on the coast, and endeavored, but not with effective success, to convert the natives to Christianity.

To the southward of Congo is the kingdom of *Angola*, which used to supply the French and other dealers in slaves with multitudes of those wretched and degraded beings, and still furnishes the Spaniards and Portuguese with a considerable number, as those nations continue the abominable traffic, in defiance of the general voice of Europe. In Loanda, which is the chief town, the Portuguese have a settlement, which is the great mart of slaves.

Further to the south is the territory of *Benguela*, with which the Portuguese are also connected. The climate of this country is particularly insalubrious, and the people are rude and barbarous. Mines of copper exist among the mountains ; but they are not rendered, even by the European colonies, subservient to general use. The other territories are insignificant. The Portuguese have numerous factories and posts upon some parts of the coast, and claim extensive territories in Congo, Angola, and Benguela ; but in many cases their claims are merely nominal.

4. *Inhabitants.* There is considerable diversity in features and color, in the different nations or tribes. The peculiar negro features are not found in all. The Mandingoes have regular and open countenances, and among the Ashantees may be found faces of Grecian shape and precision. The negroes are generally well shaped ; and among the females may often be seen the most graceful forms. In all things but in color, they have what are allowed in Europe to be the requisites for beauty. The dress is various, and different tribes and people of the same tribe indulge in a diversity. In some places, nakedness is hardly covered, and in others the dress is cumbrous. In Timannee, it is considered respectable to wear large trousers, of several spans of cloth ; and great breeches there are synonymous with great men. A ruler in that country on seeing Laing take off his gloves, exclaimed in astonishment, " Alla akbar, he has pulled off the skin from his hands ! "

5. *Language.* The languages are various, but the Arabic is gaining ground as the Mahometan religion spreads.

6. *Manner of Building.* The manner of building is slight, as the dwellings are intended to be a defence from heat, and not from cold. In Ashantee, the houses are built with some skill and regularity, and the rooms are rudely painted, in regular and pleasing figures.

7. *Food and Drink.* The general food is light, consisting chiefly of rice, honey, yams, groundnuts, and fruits. Palm wine, and *pitto*, the country ale, are the chief intoxicating liquors, though, on the coast, may be had the European spirits. On the coast, there is much beastly intoxication.

8. *Manners and Customs.* The slave-trade has been fruitful in evil to this part of Africa, and all over the continent it has perpetuated mischief, no less than in America. It has broken up the foundations of society, and much depraved the character of the negroes. In the interior, where the European traveler has never penetrated, may yet be found tribes, living in the simplicity of innocence, but depravity may be measured by the approach to the coast. On the coast, however, the African character remains, and the people are timid and cheerful. They are placable, and will, in a moment after a quarrel, be perfectly reconciled. Some of them are warlike, and all of them, under many circumstances of war, kidnapping, &c., are cruel.

In Dahomey, the people are characterized as having a strange mixture of ferocity and politeness ; and in Ashantee, they live, with many of the comforts of civilization, in a state of shocking barbarism. They have trade, wealth, and a regular government ; but the human sacrifices, perpetrated in the capital, are almost beyond belief. The king, and grandees, have vessels of silver and gold, and the English mission remarked a great natural politeness among the courtiers. Suicide is not uncommon, in cases of disgrace. The people are extremely neat in their persons, dress, and houses ; and they bathe daily. Cowardice is punished as a crime, with death ; and in wars, the general places himself in the rear, to kill those who may retreat. In some of the negro nations, there is an institution called the *simo*, or the *purah*. The chief, and the initiated, reside in woods ; and by the power of superstition, as well as of force, render the neighboring people tributary. Some classes are generally privileged, and may travel safely when the countries are at war ; these are orators, or lawyers, minstrels, blacksmiths, and shoemakers. The *palavers* are judicial and deliberative assemblies, and " to bring a palaver," is, in other words, to bring an action. On these occasions, the orators are very adroit. In some parts, constructive damages are allowed to a great extent. Thus, when eggs were stolen, after the lapse of years, the loss was computed on the supposition, that they would have hatched and multiplied in the greatest ratio. There is a general deference to old age, and there are no destitute old people to be seen.

The common amusements are dancing, story-telling, and singing. The dancing is often continued by the whole village, during the night. The only education ever received, is that degree of knowledge obtained by a few, to read the Koran, and write a few sentences in Arabic. The Mahometan religion has some followers in almost every tribe, and a reader in the Koran enjoys considerable reputation. Generally, there is some notion of a Supreme Being.

There are many *fetiches*, or indefinable objects, principles of worship, or consecrated things. The *fetich* seems to resemble the *obi* of the West Indies, and the *taboo* of the South Sea Islands. Charms, amulets, and *saphies*, or written charms, are in great use, as defence from danger, &c. It is a general custom, in eating and drinking, to throw a little food or drink on the ground, as an offering to the dead. At various places, but especially in Ashantee and Dahomey, there are human sacrifices, and Coomassie is the very court of Moloch. At the "yam custom," in September, when the yam is ripe, the convicts are executed; but all chiefs, who enter the city, have the right of sacrificing 4 slaves, one at each of the 4 corners of the city. At the death of a chief, or one of his family, the grave is filled with the heads of the victims who are sacrificed, that their spirits may be in attendance on the soul of the departed. When the king's mother died, 3,000 people were slain; and, on occasions when the king would propitiate the higher or the lower powers, he offers these sacrifices; and, as the victims are taken promiscuously, the streets are deserted, or a few people only cross them by stealth, or run through them at full speed. When a death takes place in a family, the slaves run forthwith to the woods, for it is usual to sacrifice one on the instant, and more at the burial. The persons to be sacrificed, are sometimes led in processions, with a knife through their cheeks and tongue.

In the Portuguese settlements, which are large, and divided into duchies, counties, and marquisates, the Christian religion has been preached to the negroes since the 15th century. The gospel, however, is not embraced by any free nation, and the Jagga negroes have associations to prevent its spread. This cannot excite surprise, when we consider what Christians have done in this part of Africa.

In Congo, Loango, and other countries, more or less subject to the Portuguese, the labors of the Capuchin missionaries have been successful, and there are more than 100,000 converts, including some native princes. It is probable, that their Christianity is not of the purest kind. The outward forms of worship are those of the Romish church, though there are many pagan observances. French ecclesiastics, also, founded missions in Caongo and Loango, in 1766. The missions are still kept up, though feebly, in these countries, and in Benguela. At Sierra Leone, bibles are distributed by thousands in the native languages, and negroes of superior talents trained for teachers and missionaries. Similar advantages are spread, also, from Liberia.

The king of Ashantee has 3,333 wives, and the number is religiously kept entire, though many of them are infants, and but a few hundred of the wives are attached to the palace. Polygamy is common on the whole coast, but the Mahometan professors have generally but 4 wives. When the wives of the king of Ashantee go out, they are preceded by boys with whips, who fall upon every one in the street, that no one may see the ladies. These boys or pages, have the right of pilfering in the market, and they are always busy in their vocation. They will trip down a countryman, bringing his supplies, and when scattered on the ground, collect the merchandise and run away. The market people, however, are very circumspect, and if they can take the pages before they reach the palace, may inflict upon them any beating short of death.

The government of the different countries or tribes, is despotic, aristocratic, or republican. The ordeal by poison is used in many places, and the poison must be taken both by the accused and the informer. Few of either survive it. Lander, who was forced, on his return, to swallow a bowl of the vegetable poison, walked off unharmed to his tent, where he discharged his stomach by a powerful emetic, and received little injury.

At Ashantee, the legal interest is $33\frac{1}{2}$ per cent for 40 days, and if the debtor cannot pay, he may be sold to slavery, subject to redemption. In charges of treason, if the accused is acquitted, the accuser suffers death. It is forbidden, by law, to praise another man's wife; so that "honey-mouth," as flattery is called, is not in repute. Conjugal disputes are sometimes settled by the interference of *Mumbo Jumbo*, a mysterious personage, who seems to be in the interest of the husband; his interposition is decisive. ♣ He is an incarnate bugbear, dressed in the barks of trees, and sometimes surmised to be the husband himself. *Mumbo Jumbo* comes at evening, and goes to the *Bentang* tree, where the whole village assembles, though the females are the least pleased, for no one knows to whom the visit is intended. At about midnight, *Mumbo* fixes upon the offender, who is stripped, tied to a tree, and scourged.

The people of the western countries have the art of smelting iron, though they do not use the metal skilfully in any manufactures. They have some sweet and simple tunes, which they play on a calabash guitar, with a few notes. Marriages, among the Mandingoes, are celebrated

*Marriage Celebration.*

by shouting, drinking, and firing guns, and the bride is carried to her husband's house on the shoulders of an old woman, who walks all the way upon mats spread before her. There are, in the African concerts, also, pipes, horns, drums, and old brass pans.

CHAPTER LXXIX. SOUTHERN AFRICA.

1. *Boundaries and Extent.* Under this head, we include all the country extending from the last described territories, southerly to the Cape of Good Hope, comprising the Cape Colony, Caffraria, and all the Hottentot and Cimbebas regions. It will thus extend from the Cape of Good Hope, or rather Cape Agulhas, the southern extremity of Africa, in latitude $34^{\circ} 55'$ South, to about 16° S. latitude, on the Western Coast, and 26° S. latitude on the Eastern Coast. Its boundaries are Guinea, unknown countries, and Monomotapa, on the north, the Indian Ocean on the east, the Southern Ocean on the south, and the Atlantic on the west.

2. *Cape Colony.* This district occupies the southern extremity of Africa. The leading feature in the aspect of the Cape territory, consists in 3 successive ranges of mountains, running parallel to each other, and to the southern coast of Africa. The first range, which, at least in a great part of its line, is called the *Lange Kloof*, or *Long Pass*, runs parallel to the coast, at a distance of from 20 to 60 miles, widening towards the west. The second range, called *Zwarte Berg*, or *Black Mountain*, is considerably higher and more rugged, than the first, and consists, often, of double or even triple ranges. The belt, interposed between the *Zwarte Berg* and the *Lange Kloof*, is nearly of the same average breadth, as that between the latter and the sea, and it is of considerably greater elevation. Beyond the *Zwarte Berg*, at an interval of 80 or 100 miles, rises the *Nieuweldt's Gebirge*, or *Snowy Mountains*, the highest range of Southern Africa, and the summits of which are generally covered with snow. They have not been accurately measured, but are not supposed, in their greatest height, to fall short of 10,000 feet. The passes, between these mountains, are called *Kloofs*, in Dutch. The following cut represents a pass, called *Hottentot Hollands Kloof*. The belt, or plain, interposed between these two last chains, is considerably more elevated than either of the two others, so that Southern Africa forms, as it were, a succession of terraces, rising above each other. The plain next the sea, is covered with a deep and fertile soil, watered by numerous rivulets, well clothed with grass, and with a beautiful variety of trees and shrubs. Rains are frequent; and from its vicinity to the sea, it enjoys a more mild and equable temperature, than the interior and remoter parts of the colony.

The second terrace contains a considerable portion of well-watered and fertile lands ; inter-



Hottentot Hollands Kloof.

persed with large tracts of the arid desert, called *karroo*. The third belt, called the Great Karroo, is composed of a vast plain, 300 miles in length, and nearly 100 in breadth ; the soil of which is of a hard and impenetrable texture, destitute, almost, of every trace of vegetation. The plains of South Africa, called *karroos*, present a dreary, listless uniformity of level surface, except where broken by a few straggling hills of schistus or slate, which rise, like little volcanic cones, out of a naked surface of clay, whose tinge is that of a dull, ferruginous brown. All traces of animated nature are, in the dry season, obliterated from these dreary solitudes ; and the withered remains of the fig-marigolds, and other succulent plants, sparingly scattered over the surface, crackle under the feet, and seem, from the faint and feeble traces of vegetable life, to maintain a perpetual struggle for existence.

The northern front of *Table Mountain* overlooks Cape Town, and rises almost perpendicularly, like the ruins of some gigantic fortress, till it terminates in a line, nearly horizontal, and of about 2 miles in extent, the highest point of which is about 3,585 feet above Table Bay. The west side of this stupendous mass of rock, extending along the seashore, is rent into hollows, and worn away into pyramidal masses. The ascent of the mountain is very steep and difficult, on account of the loose stones, which roll away under the feet of the traveler. Its summit is nearly level, and very barren and bare of soil ; several cavities, however, are filled with water, or contain a small quantity of vegetable earth, from whence a few odoriferous plants, particularly the *Anaa mucronata*, an elegant frutescent plant peculiar to this region, draw their nourishment. Antelopes, baboons, solitary vultures, and toads are sometimes to be met with on the mountain. The view from the summit is very extensive and picturesque. The bay seems a small pond or basin, and the ships in it are dwindled to little boats ; the town under the feet, and the regular compartments of its gardens, look like the work of children ; all is dwindled into mere specks and lines. The air on the summit, in winter, and in the shade, is generally about 15° lower than that of the town ; but in summer the difference is still greater, particularly when the southeast wind blows, and a fleecy cloud, called "the Table-cloth," appears on the mountain, and gives indication of an approaching storm. This cloud is composed of immense masses of fleecy whiteness. It does not appear to be at rest on the hill, but to be constantly rolling onward from the southeast, yet, to the surprise of the beholder, it never descends, because the snowy wreaths seen falling over the precipice towards the town below, vanish



The Congo Cavern.

completely before they reach it, while others are formed to replace them on the other side. One of the most remarkable natural curiosities in this country is the Congo Cavern, of which the above cut is a representation, as seen by torch-light.

3. *Rivers.* The colony is deficient in navigable rivers for vessels of any considerable burden. The two principal rivers on the western coast are the *Berg*, or *Mountain River*, and the *Olifant* or *Elephant's River*. These streams are only navigable by small craft to the distance of about 20 miles up the country. On the south coast of the colony the *Breeds* or *Broad*

River discharges itself into St. Sebastian's Bay. Its mouth, now called Port Beaufort, allows vessels of 200 tons to enter, and discharge or load in safety. The *Gauritz*, the next great river on the coast, is a collection of waters from the Great Karroo and Black Mountains. In the rainy season it is a rapid and dangerous stream. The *Knysna* is considered by Barrer to have been a lake which has opened itself a channel to the sea, and the tide now sets into it, through a narrow passage, as into a dock. The arms of the *Knysna* stretch into the deep valleys at the foot of the mountains, and are there lost in impenetrable forests. The *Keurboom*, like the *Knysna*, runs up into the midst of tall forests. The *Camtoos River* admits vessels of 200 tons, and promises to be of great service to the colony, particularly if it prove true, that coal is to be found on its banks. The *Zwart-kops River* is a clear, permanent stream flowing into Algoa Bay. The mouth of the *Kowie River* is the next port to the eastward. The *Great Fish River*, the *Rio d' Infante* of the Portuguese, takes its rise beyond the Snowy Mountains, and in its long course collects a multitude of tributaries. The northern frontiers of the colony are watered by two large rivers; the *Lesser Fish River* and the *Gareip* or *Orange River*. The former, which waters the Great Namaqua territory, falls into the *Orange River* about 70 miles from its mouth. The *Orange River* appears to be formed by two rivers which unite their waters nearly 600 miles due east from their mouth. It falls into the Atlantic in latitude $28^{\circ} 30'$. Most of these rivers, swelled by periodical rains, deposite much mud and sand at their mouths; some of them in the dry season are lost amid the sands and rocks. Besides these principal rivers there are a number of small streams, which may be generally crossed dry-shod, but after a fall of rain increase to a great size.

4. *Climate*. The seasons in this colony are divided into monsoons, of which there are two annually; the one wet, the other dry. The dry monsoon is called summer; the wet monsoon constitutes winter. The former, or rather the spring season, commences in September, the latter in March. During the dry monsoon, southeast winds are prevalent. The wet monsoon is generally attended with northwest winds. The weather, during the wet monsoon, is disagreeable and moist, but the cold is never severe. Ice is never much more than the eighth part of an inch thick. Thunder and lightning are rare, and seldom violent. The atmosphere is healthy, and agrees well with European constitutions.

5. *Soil, Productions, &c.* Of the district occupied by the colony, a great part is mountainous and barren; but it contains many fine and fertile tracts. The Cape has long been celebrated among naturalists and botanists as a fertile field for their labors. Almost every animal found on the African continent, may be found in the neighbourhood of this colony. Two varieties of the lion are found in South Africa, namely, the yellow and the brown, or, as the Dutch colonists often term the latter, the blue or black lion, which sometimes commit great ravages among the cattle. The dark colored species is the stronger and fiercer. Zebras have become very rare in the colony. The elephants have also forsaken the countries inhabited by Europeans, excepting the Sitschamma district; the two-horned rhinoceros shows itself still more rarely; and the gentle giraffe seeks the more secluded districts. The *Bos Cafer*, or buffalo of the Cape, is distinguished by enormous horns. Flax yields two crops in the year, and hemp is abundant. Indian corn grows well; cotton and coffee, rice and sugar, are yet but little known; European wheat and barley thrive well; the flora is singularly rich.

6. *Manufactures, Commerce, Towns, &c.* There are few manufactures conducted at the Cape, except the making of wine, of which about 7,900 pipes are annually exported to England, while the colony itself consumes at least 6,500 within the same period. The wine called Constantia, from the name of the small district where it is made, is much celebrated. The quantity yearly produced does not exceed 100 pipes. The vines from which it is produced were originally brought from Shiraz, in Persia. Vines have been transplanted from many different places; and, in several instances, the removal has improved them. Many kinds of wine are extremely cheap. Next to agriculture and wines, the whale and seal fishery must be ranked. The colonists are making rapid advances in several new experiments, the most prominent of which is the introduction of the silk-worm. The mulberry tree grows spontaneously, particularly on the southeast coast; and the produce promises to be of the utmost advantage to the trade of the Cape. Wool is also becoming an important article of produce. The Cape supplies various articles of provision and refreshment to ships sailing between Europe and the East Indies. Among these articles may be enumerated corn, flour, biscuit, beef, brandy, and wine; and while they remain in Table Bay, mutton, greens, and fruits; aloes, hides, barilla, ivory, ostrich feathers, fruits dried in the sun for the Indian market, are

the other products for exportation. The inland trade carried on with the natives has not only much increased in value of late years, but has essentially altered its character. The medium of traffic was formerly trinkets and useless articles, but the natives now demand clothes, blankets, tools, and utensils, and the trade has become regular, and is rapidly growing in amount.

Cape-Town, the capital, is situated in a valley, at the foot of Table mountain, and at the southeast angle of Table bay. It was founded in 1652, and is built with great regularity, and with a considerable degree of elegance. The streets, which are wide, intersect each other at right angles. The houses, about 1,500 in number, for the most part are of stone, cemented with a glutinous kind of earth, and are generally whitewashed on the outside. Their height is seldom more than two floors, frequent storms rendering a greater elevation dangerous. Many of the houses have trees planted before them, which give a rural appearance to the town. The castle is a large pentagonal fortress, on the southeastern or inland side of the town, close to the water's edge. The colonial office possesses a fine collection of books. To the southward of the town a great number of elegant villas are scattered about, and the scenery resembles that of the rich and cultivated districts of England. Labor, house-rent, and fire-wood, constitute a large proportion of the expenses of living at Cape-Town; fruit, vegetables, and sea-fish are abundant and cheap. Horse-races, balls, masquerades, and Sunday promenades in the government gardens, form the leading amusements. Population, 20,000.

The colony is divided into 10 districts. The population amounts to 160,000 souls, of whom 36,000 were slaves, principally Hottentots. They were emancipated in 1834. The annual value of the imports is 5,000,000 dollars; of exports 1,600,000. The Cape of Good Hope was discovered by Diaz, a Portuguese navigator, in 1493, who called it *Cabo Tormentoso*, or Cape of Storms, from his having experienced stormy weather there. Emanuel, king of Portugal, inspired with the hope of now reaching India by sea, gave it the more cheering name of Cape of Good Hope, which it has ever since borne, and which it has communicated to the surrounding region. The Dutch first formed a settlement on the coast in the middle of the next century, but in 1806, the colony was conquered by Great Britain, and has since remained in her possession. In 1834 and 1835, the colonists became involved in a severe conflict with the neighboring Caffres, and the result of the war was the extension of the limits of the colony from the Keiskamma, the former boundary, to the Great Key River, by which a large tract of fine country has been added to the colonial possessions.

7. *Caffraria*. This country lies along the coast of the Indian Ocean, and comprehends various tribes on the Koussas, Tambookies, Hambounas, Betchuanas, Mashows, &c.

"The Caffre nations," says Malte Brun, "inhabit a region less known than any on the globe. We there see, behind a marshy, unhealthy, but fertile coast, chains of mountains arise that have been very imperfectly examined, which appear to be in a parallel direction with the coast, that is, from southwest to northeast. Our missionaries inform us, that those parts of Caffraria which they have visited, are mountainous and rich in water. The soil is argillaceous, tempered with fine sand, and very fertile. The whole surface, and even the tops of the mountains, are covered with woods, shrubs, and grass; never naked and parched, except in uncommonly dry seasons."

The winter, which is the rainy season at the Cape, is in Caffreland the driest; and most of the rain comes down by thunder-storms in the summer. The country, in general, is considerably elevated above the level of the sea, and much colder than, from its nearness to the tropic, might be expected. Perhaps the plentiful rains, the high mountains, and the strong electricity prevailing in the atmosphere, may be mentioned among the causes of its fertility. The thunder-storms, which are more frequent and tremendous than in Europe, exhibit also uncommon phenomena. The flashes of lightning, which in Europe diffuse a light through the air, which dazzle the eye, and disappear in a moment, here consist of a stream of distinct sparks drawn by the earth from the clouds, or from one cloud by another.

The most common animals in Caffraria are the ox and the wolf. Of the former (including bulls and cows), the natives often possess several hundreds; and some keep above a thousand. Of the latter, there are two kinds; the first spotted; and, on that account, called by the colonists, *Tiger-wolf*; the other is the *Strand-wolf*. The first is most common, and very troublesome. The lion and the buffalo are less frequent. These animals seem to be fond of each other, and commonly keep company; though the lion uses the buffalo for food. Elks grow very large; one of them affords more meat than two oxen; they are easily taken. The elephant of this country is very tall, much more so than that of India; his teeth are sometimes

8 and 9 feet long. There are no tame horses in Caffreland, except a very few which are brought from the colony ; but there are two sorts of wild horses, the *Douw* and the *Quagga* ; the former is more beautifully streaked than the latter. The quagga is an enemy to the wolf, and drives him out of the field which he inhabits. The tiger of this country is not streaked, but spotted with small brown spots. " I must also mention," says Dr. Vanderkemp, " an animal, the name of which is not known in the colony, as they call it the Unknown Animal. The Hottentots call it *Kamma*. It is sometimes seen among a herd of elks, and is much higher than these. It was never caught nor shot, as it is, by its swiftness, unapproachable ; it has the form of a horse, and is streaked ; but finer than the douw. Its step is like that of a horse. I looked upon this description as somewhat fabulous, till we came near the Teitjana, among the Boschmen ; there one of our company saw an animal among some quaggas, which he had never seen before ; he said, that it was like a most beautiful horse, but much larger. The Boschmen pointed to a plain where they said these animals were found in great numbers. This one had a tail like that of a *n'gau*, but with a much longer bunch of hairs at the point." This appears to be the unicorn of Campbell and others. At Mashow, a town in the territory of the Tamahas, an animal of the rhinoceros kind was killed in 1821, having a horn projecting three feet from the forehead, arising about ten inches above the tip of the nose. A few inches of a small second horn, behind, did not affect its unicorn appearance. The head measured three feet from the mouth to the ear. It is at present deposited in the British Museum. There are two sorts of wild hogs. The rhinoceros with two horns, and the sea-cow, are also natives of this country. The latter has strength and courage enough to throw a rhinoceros from the rocks, down into the river. The rhinoceros, however, is the terror of the elephant, and sometimes puts many of them to flight. There is a variety of antelopes, distinguished by the names of *Steinbok*, *Springbok*, &c.

About 900 miles to the northeast of Cape-Town, is *New Lattakoo*, situated near the source of the Krooman, a main branch of the Orange river ; and 50 miles beyond that, stands *Old Lattakoo* ; each of these towns contains about 4,000 inhabitants.

Campbell, in 1821, penetrated as far as *Kurreechane*, the capital of the Marootzes, and was favorably received. The population of this town was estimated, by him, at 16,000 souls. Mr. Campbell saw many founderies in Kurreechane ; but he regrets, that they were guarded with so much jealousy, that he was not allowed to enter them. Kurreechane appears to be the Staffordshire, as well as the Birmingham, of that part of South Africa. They manufacture pottery ; and, in the shape and painting of their articles, show a superior degree of taste. They appear to excel in the making of baskets ; and Mr. Campbell found the walls of their houses ornamented with paintings of elephants, camelopards, shields, &c.

8. *Inhabitants.* The white inhabitants are Dutch, Germans, English, and a few French. There is, also, a considerable number of the mixed race, and there are a few thousand Malays at the Cape. The negroes are chiefly of the *Hottentot*, or *Caffre* race. The color of the *Hottentots* is a yellow-brown, and their formation is peculiar. They have very small hands and feet ; their faces are broad above, and narrowed to a point. Their cheek bones are prominent, and their lips thick. In some tribes, the wool grows in little tufts, like the teeth of a shoe-brush, and when suffered to grow, hangs in fringes. The *Bushmen* are a tribe of *Hottentots*, anciently separated from the rest. To European eyes, the women are objects of horror ; lean and gaunt, except over the hips, where all the flesh seems to be piled. A *Venus*, drawn from the *Hottentot* model, would have little resemblance to that of Florence. The *Hottentots* smear themselves with fat and soot, and are so used to it, that, when washed, one seems to be without his clothes. The *Caffres* are of a black-gray color, and, like the *Hottentots*, have a few tufts of beard on the chin. They are exceedingly well-formed, hardy, and active. They travel much, if for no other reason than to visit each other. The females are small, but finely formed. The *Beichuanas* are, in form, superior even to the other *Caffres*.

The native tribes dress chiefly in the skins of sheep, which the *Hottentots* wear, with the wool, generally, in the form of a cloak, open before. This is called a *carosse*. The females have a petticoat of skins, or leather. The *Caffres* dress in leather, which they have the art to render very pliant. They wear many ornaments of beads, rings, carved bones, &c. The following is a representation of the Queen of Lattakoo, in full dress. The *Bushmen*, when they have any clothing, dress like the *Hottentots*. Their handkerchiefs are jackal's tails, tied to a handle ; and, with these, they wipe the perspiration from their faces. The English language is, now, that of all official proceedings ; but the Dutch is the general language in the



Queen of Lattakoo.

colony. The language of the Hottentots, is harsh and shrill. Their dwellings are rude, and of an elliptical form. A few poles are bent over, and skins or mats thrown over them. The entrance is low, and serves for door, window, and chimney. The Bushmen have huts still less convenient, consisting of 3 mats, laid upon poles. The tribes, which have cattle, pen them, at night, in the circle inclosed by the dwellings. A village is called a *kraal*. Any food is acceptable to Hottentots, or Bushmen. When in want of flesh, they eat roots, ants, larvæ, grass, mice, and toads. They can go long without food, and when it is obtained, eat as much as the Esquimaux, without injury. The Caffres live upon flesh, milk, melons, &c. They use no salt. They eat, of pork, geese, hares, or fish. The latter, they suppose, are a kind of serpent. All the tribes are fond of tobacco; which, for the want of a better pipe, they smoke through the shank bone of a sheep. They smoke, also, the leaves of a kind of hemp, called *dacha*, which stupifies and intoxicates. The colonists have a profusion of articles of food, though much of their subsistence is drawn from their herds. Much brandy is consumed, which is spread over the colony by means of traveling peddlers. The wines of the Cape are, some

of them, excellent. The Frontignac, and Lavelle, are equal to those of France. The Constantia is produced from the vine of Shiraz, in Persia. Some of it is exquisite. The wines, in general, have a deleterious mixture of brandy. There are 150 varieties.

The mode of traveling is laborious, and slow; in the greater part of the colony, there are no roads, and the colonists travel in wagons, drawn by 6 or 7 pair of oxen, with relays in attendance. They carry, also, sheep for provisions, for there are no inns. This can, under no circumstances, be called rapid traveling, except by comparison. Campbell, who was familiar with it, consoled himself with the reflection, that the pace of an ox was swift, compared with that of a snail or chameleon. The ox is also frequently used with a saddle; and a recent traveler expresses his surprise at seeing, even in Cape-Town, a "Hottentot chief, riding at full speed, upon a roan ox." The Dutch colonists have been subject to much animadversion from travelers. Those who engage in agriculture are called *boors*, and they are as hospitable, but coarse and ignorant. They are addicted, at their convivial meetings, to intemperance, and the



A Lion attacking Travelers in Southern Africa.

most boisterous merriment. They are, however, more ignorant than depraved. The state of society, at Cape-Town, has not been highly praised; but all travelers admit, that the ladies are distinguished for sweetness and affability. The Hottentots, who have been called a stupid race, seem to be so, only from their oppressed condition; they are gentle, and faithful, when trusted. They are filthy in their persons, and indolent in their habits, but they make good servants to the boors, who have many of them employed in that manner. They travel much, and one of them has been known to go 60 miles, on his ox, to recover a knife, of the value of 18 pence. The Bushmen have been described as the lowest grade of human nature. Campbell met a horde, in which only one had a name, and he was called the "Old Boy"! The Caffres are a pastoral, and, at the same time, a plundering people. A missionary asked one, "for what he supposed men were created," and his reply was, "to go on robbing expeditions against each other." In their huts, they sit on the skulls of oxen, with the horns attached. They hold hospitality sacred. They are very kind to each other, and a whole *kraal* takes an interest in accommodating a misunderstanding between individuals. They are excellent herdsmen, and

the herds are made to stop at a whistle, being perfectly trained. In their wars, the women are the heralds. The Betchuanas are superior to the Caffres, in intelligence and handicrafts. They travel more than the Caffres, who, however, travel much.

Education is neglected in the settlements, though schools have been recently established. The dominant religion of the colony, is the Calvinistic, and there is a church in every district. There are several Episcopal churches, and many missions, under the direction of the London Missionary Society, the United Brethren, and the Wesleyan Methodists. There are a few Mahometans at the Cape, chiefly Malays. Circumcision is generally practised among the tribes, though they give no reason for it, and have no tradition concerning it. There is, among the natives, some indistinct conception of a Supreme Being, but not among the pagans, any of a future state. They believe in sorcery and witchcraft, and that disease occasioned by sorcery. There are rainmakers, who pretend to bring rain. The Hottentots have a horror of matrimonial infidelity, and have little polygamy. This, however, is common with the richer class of Caffres. The general amusement is dancing, though the natives are less fond of it, and have less music, than the tribes of Central Africa. The government is that of chiefs, whose authority, however, is very limited. The Caffres punish offences by whipping with rods, by exposure to clusters of black ants, by burning with hot stones, by inclosing the offender in the cleft of a tree, and by death, inflicted by clubs, spears, or drowning.

CHAPTER LXXX. EASTERN AFRICA.

1. *Boundaries, Extent, and Divisions.* Under this head, we shall comprise all the African coast, from the straits of Babelmandel to Caffraria. This territory is bounded north by Abyssinia and the straits of Babelmandel, east by the Indian Ocean and the Mozambique channel, south by Caffraria, and west by unknown regions. It extends from 12° North, to 26° South, latitude, and may be regarded under 5 divisions; Monomotapa, Mozambique, Zanguebar, Ajan, and Adel.

2. *Monomotapa.* This district is the most southerly, and includes Sofala, Inhambane, and Delagoa. It is watered by several rivers, the largest of which is the Zambeze, said by the natives to rise from a great lake. The river Delagoa falls into a large bay and is navigable 200 miles for large boats. The soil is fertile, producing rice, maize, sugar-cane, and fruit. Gold abounds in the interior, and Sofala is thought to be the Ophir of the scriptures. The inhabitants carry on a trade in ivory, gold dust, and gums. The slave-trade was formerly carried on here largely by the Portuguese, and has not yet entirely ceased. The country is inhabited by various tribes, and the right by discovery to the whole territory is claimed by the Portuguese.

3. *Mozambique.* This district lies to the north of Monomotapa, and is traversed by the Lupata mountains, but its interior, as may be said of all the territory described in this chapter, is very little known. The city of Mozambique is the emporium of Eastern Africa, and was rich and flourishing long before the appearance of Europeans in these parts. It has a good harbor, and is still visited by European ships, but the immense slave-trade upon which it depended for its support has declined, and it now affords hardly any articles of commerce. Here are some manufactures of rope from the fibres of the palm tree. There is also a little trade in gold dust. The shoals in the neighborhood of the city afford a vast variety of beautiful shells. The inhabitants are Moors. The population is about 6,000.

4. *Zanguebar.* The coast to the north of Cape Delgado is vaguely termed the Zanguebar coast. It is well watered, fertile, and well timbered, and contains some excellent ports. Our knowledge of it is extremely imperfect. The principal states seem to be *Quiloa*, *Mombasa*, *Melinda*, and *Magadozo*, so called by Europeans from their respective capitals, which are petty towns. The whole of this coast belongs to the imam of Mascat.

5. *Ajan and Adel.* The coast from Zanguebar to Cape Guardafui bears the name of *Ajan*; it is dry, rocky, and barren. The want of harbors, the sterility of the country, and the fierceness of the natives have prevented it from being much frequented by traders. North of this from the Cape to Abyssinia is *Adel*, which is inhabited by the Somaulis, who also occupy the coast of Ajan, and probably extensive regions of the interior. They are not negroes, but have long hair, and an olive or blackish complexion; and are probably either of the Caffre or Breber race. They have ships of their own, and are active, enterprising merchants. Their

chief towns are *Berbera* and *Zila*, which carry on a trade with the natives of the unknown regions of the interior, and with the Arabs of the opposite shore.

6. *Inhabitants.* Of the people on the coast, northeastward from the Cape of Good Hope, little is known. The inconsiderable European commerce that is held with them is carried on by the Portuguese. In Botongo the king is called *grand sorcerer* and *grand robber*, and he is constantly attended by 400 executioners. A better custom exists in four ministers who yearly traverse the kingdom, one representing in eastern allegory the person of the monarch, a second his eyes, a third his mouth, and a fourth his ears. The Mahometan religion and the Arabic language are common on the coast. The people of Monomotapa are as little known to Europeans as they were in the 16th century. They go nearly naked, and are credulous in charms and conjurations. The king, as in Ashantee, is said to have a guard of armed females. In Zanguebar the sovereign assumes the title of "Son of the Supreme Lord," and goes to war with 300,000 troops mounted on oxen. The people are said to live without a settled religion, or law. Each one has some different object of worship. There are few fruits or vegetables, and millet forms the principal article of food. There are numbers of the Moorish inhabitants. In Magadoxo, the king and principal people only are dressed; the common people go nearly naked. The king, except on journeys, has neither court nor guards, and no one salutes him. The ashes of the kings and queens are collected in urns of gold. Criminals are despatched with a club or exposed to wild beasts. The inhabitants rear great numbers of cattle, and trade in slaves, gold, silver, ivory, oil, frankincense, pepper, drugs, wax, ostrich feathers, &c.

CHAPTER LXXXI. ABYSSINIA.

1. *Boundaries and Extent.* This country is bounded north by Nubia, northeast by the Red Sea, south by Adel and unknown districts; and west by Nigritia. It extends from 8° to 16° N. latitude, and from 34° to 43° E. longitude, and contains 340,000 square miles.

2. *Mountains.* Abyssinia is very mountainous; and is sometimes described as a table-land with a gentle inclination to the northwest. A lofty range called the *Lamalmon*, extends along the shore of the Red Sea. The mountains of *Samen* in Tigre are still higher. In the south and west are several ridges, supposed to be branches of the mountains of the Moon. These mountains do not rise to the height of perpetual snow. Their sides are steep and they generally shoot up in sharp peaks. One of the most remarkable characteristics of its surface is the *ambas* or hill-forts, isolated hills rising suddenly with steep and almost inaccessible sides out of the plains, and often displaying on the top a level surface of considerable extent.

3. *Rivers.* The *Bahr el Azrek*, or *Blue River*, rises in the country of the Adows, flows through the *Lake Dembea*, into Sennaar, where it joins the Nile. This is the stream whose source was discovered by Bruce and considered by him as the main branch of the Nile. The *Taccazze* is another stream falling into the Nile.

4. *Climate.* The level shores of the Red Sea have a very hot air, but in the greater part of the country the numerous mountains produce a temperature seldom uncomfortably warm. Thunder is frequent and violent, and the sort of whirlwind known in the Indian Seas by the name of typhoon, is common. The rainy season lasts from April to September; during which time the country is drowned by a continual deluge.

5. *Minerals.* This country seems quite destitute of metals, but it contains a great plain of salt, four days' journey in extent. For about half a mile the salt is soft, but afterwards becomes hard like snow partially thawed. It is perfectly pure and hard for two feet in depth. The inhabitants cut it in pieces, which serve not only for food, but circulate as money.

6. *Animals.* Hyenas are very numerous in this country, and render traveling highly dangerous. They even enter houses and often assemble in vast troops. Elephants and rhinoceroses are common in the low grounds. Buffaloes and antelopes are common, and the zebra is found in the south. The woods swarm with crocodiles and hippopotami. The horses are strong and beautiful, and the domestic oxen have enormous horns.

7. *Divisions.* This country consists of several separate independent States. Tigre on the Red Sea, *Amhara* in the west, and the districts of *Shoa*, *Efat*, &c., in the south. Three centuries ago these countries were under a single government. The population is supposed to be about 4,000,000. The powerful State of Tigre comprises an area of 200,000 square

railes, with a population of 2,000,000 inhabitants. The people are warlike and industrious. **Chelicut**, the capital, has about 8,000 inhabitants. **Adowa**, the principal commercial town, has about the same number of inhabitants. **Axum**, once the capital of a powerful empire, now contains a population of 3,000 souls, and there are many ruins, and remarkable edifices, in the town and its vicinity. In the great square alone, there are 40 obelisks, some of which are remarkable for their dimensions.

On the western side of the Taccazze, is a colony of Jews, called *Falashas*, or exiles, whose ancestors fled to this country, from the victorious arms of Nebuchadnezzar; they preserved their independence until 1800, when they fell under the dominion of Tigre.

The *Kingdom of Gondar* comprises the central part of Abyssinia. *Gondar*, the chief town, has from 30,000 to 40,000 inhabitants. The *Kingdom of Ankober* comprises the richest and most fertile provinces of Abyssinia; but, like Gondar, is now governed by the Gallas. The *Kingdom of Amhara* is also now in the hands of the Gallas.

8. *Agriculture*. The common article of agriculture is a grain, called *teff*, which grows in almost every soil, and is made into a bread, used in every part of the country, and from which a sort of beer, called *bouza*, is prepared. Wheat is raised upon the mountains. The papyrus, which furnished the paper of the ancients, is produced here. The soil, along the banks of the rivers, is uncommonly fertile.

9. *Commerce, Manufactures, &c.* Cotton cloths are manufactured in large quantities, the fine sort at Gondar, and the coarse at Adowa. The manufactures of iron and brass are considerable; the metals are procured from Sennaar, Wolcayt, and Berbera. Some leather and parchment is also made. The exports are gold, ivory, honey, slaves, and rhinoceros' bones. The foreign commerce is transacted chiefly at Masuah, a port on the Red Sea. This town acknowledges the sovereignty of the Grand Signor.

10. *Inhabitants*. The Abyssinians are in general well made, and, though nearly black, they have neither the nose, lips, nor hair of the negroes. They are considered to be of Asiatic origin, and to be nearly related to the Arabs; and the Amharic and Gheez languages, which are spoken in Ankober, Amhara, Tigre, and other States, bear a considerable resemblance to the Arabic. They are superior to most African nations, and their manufactures of carpets, parchments, iron, and brass ware, leather, &c., show a good deal of skill. They have, also, authors, and even painters. The Abyssinians are Christians of the Greek church; the priests are not well informed; nor are the people, in general, well instructed in the principles of the Christian religion; but the sacraments of baptism, and the Lord's supper, are administered in a decorous manner, and the ceremonies are conducted with much decency. Polygamy is commonly practised, and the secular clergy are allowed to marry once. The Jews, who form a considerable class, settled here in remote ages, and have nearly lost the Hebrew language. They are considered as sorcerers, and it is believed, that they can transform themselves into hyænas. They are generally smiths, weavers, and carpenters.

The Abyssinians dwell in round hovels, with conical roofs, to conduct off the heavy rains. The children go naked, till the age of 15. The common dress is a loose one, of cotton cloth. The various grains supply a chief article of food, and the savage gayety of a feast is heightened by draughts of hydromel, tinctured with opium. At the feasts, beef is eaten in its raw state, swimming in blood. The soldiers, in a march, cut slices from the thighs of the cattle, covering the place over with skin, and drive them on. It does not seem to be certain, that, at the common feasts, it is usual to cut the steaks in this manner, from the living animal, though it is recently killed. The great lords are fed by servants.

The manners and customs are those of a barbarous people. Their religion is mixed with Jewish practices. Circumcision is practised, and the Jewish and Christian sabbaths are observed. Saints, angels, and especially the Virgin Mary, are objects of worship, and there is a belief in transubstantiation, points derived from the Portuguese. The Abyssinian bible contains an additional book, called the book of Enoch. The priests are permitted to marry. It will be perceived, that the religion is Christian, rather nominally, than practically. There are several negro tribes in Abyssinia, who have preserved their independence. Although speaking distinct languages, they are all called *Shangallas*, by the Abyssinians. Some of them live part of the year in caves, and the remainder under the trees, feeding upon locusts, serpents, &c. They are hunted like wild beasts by the Abyssinians, and there are many Shangalla slaves in Tigre and Gondar.

The *Gallas* are a brown race, noted for their ferocity and deep barbarity. Some of them

have, in a great measure, adopted Abyssinian manners ; but many of the tribes are wandering shepherds and warriors : they are of small stature, but have long hair ; many of them have embraced Mahometanism, and they have become the ruling people in several of the Abyssinian States. They seem to have emigrated from Central Africa.

11. *History.* Abyssinia was little known to the ancients, and the tradition which makes the Queen of Sheba an Abyssinian princess, and the monarchs of the country descendants of Solomon, seems to be a mere fable. In the 4th century, the nation was converted to Christianity ; in the 15th century, it was visited by the Portuguese, whose attempts to convert the Abyssinians to the Roman Catholic faith, led to furious civil wars, and since that period, little intercourse has been maintained with Europe. Abyssinia was governed by native princes, until the inroads of the ferocious Gallas, who have made themselves masters of nearly the whole country, and even they generally seat one of the native princes on the throne, to whom they leave the form and shadow of sovereignty.

CHAPTER LXXXII. NUBIA.

1. *Boundaries and Extent.* Nubia is bounded north by Egypt, east by the Red Sea, south by Abyssinia, and west by Darfoor and Cordofan. It extends from 12° to 24° N. latitude, comprising an area of about 375,000 square miles.

2. *Mountains, Rivers, &c.* From the borders of Egypt, the land rises gradually to the south, through this whole country. In the south and east, are some high mountain ridges. The land is everywhere intersected by large and small valleys. The *Bahr el Azrek*, from the east, and the *Bahr el Abiad* or *White River*, from the west, here unite to form the *Nile*, which, with its numerous head branches, traverse the country from south to north. In the upper part of its course, this river flows between high rocks, which confine it to its bed during the period of its highest inundation, and here it forms several rapids and cataracts. Part of the country is a desert, covered with deep, loose sand, and sharp, flinty stones. In some places the soil is sprinkled with rock salt. The water, during the rainy season, is black and putrid. The climate is intensely hot, but healthy. A great part of this extensive region is now subject to Egypt, but the submission of some of the tribes is merely nominal.

3. *Towns and Divisions.* *Sennaar*, lately the capital of an independent and powerful State, has about 10,000 inhabitants. It is now merely a mass of mud huts and cabins, but there are ruins which show it to have been formerly a considerable town. The kingdom of *Sennaar*, which extended over a great part of southern Nubia, was conquered by the Egyptians in 1822.

Shendy, a small and meanly built town with about 7,000 inhabitants, is the commercial emporium of Nubia and the greatest slave-mart in the country. In the neighborhood are the ruins of *Meroë*, anciently the seat of learning and science, and which some suppose to have been the cradle of Egyptian arts and letters. Below Shendy is the country of the *Sheygyas*, a nation of warriors and freebooters, containing no considerable town.

Dongola, capital of a small State, which previous to the Egyptian expedition had been conquered by the Mamelukes, was formerly the richest and largest city of Nubia, but is now reduced to a few hundred inhabitants. The northern part of Nubia, or Lower Nubia, called also the land of the Barabras, contains *Derr*, with about 3,000 inhabitants, chiefly of Turkish origin, and *Ebsamboul*, a petty village, remarkable for the magnificent cave-temples in its neighborhood, enriched with historical sculptures and paintings, colossal statues, and columns. Numerous ruins line the banks of the Nile throughout this region. The country between the Red Sea and the Nile valley consists of vast deserts and rugged and sterile hills, occupied by numerous wild and wandering tribes. *Suakim*, on the Red Sea, is an important commercial place, and a great slave-mart ; population 8,000, chiefly Arabians.

4. *Agriculture.* Dourra and bammia are the principal grains cultivated ; cotton and tobacco are raised in some parts. The Nile does not rise sufficiently high to overflow its banks, and the land is irrigated by means of water-wheels, as in the following cut ; the machinery is turned by cows. The inhabitants make palm wine, beer, and distil a spirit from dates. Some cotton cloth is manufactured. The chief articles of export are dates and slaves. The population is about 250,000.

5. *Inhabitants.* The inhabitants of Nubia are composed of various races. The Nubians proper, inhabiting the valley of the Nile, consist of two branches, the Kenoos and the Nubahs.



Water-wheels. (Page 522.)

They speak different dialects of the same language, and are called by the Arabs Berbers or Barabras. They have long been subject to foreigners, and are poor and ignorant. In the villages, round huts of mud or loose stones, and in towns, houses around an open court, in the Egyptian fashion, are their habitations. A few earthen jars and dishes, a hand-mill, a hatchet, and some sticks to form a rude loom, constitute the whole furniture. A blue shirt or a woolen cloak and white cap are the attire of the men; the women are wrapped up in linen rags or woolen gowns, with earrings and bracelets of glass or straw. The weapons are a club, a lance, and a shield covered with hippopotamus skin.

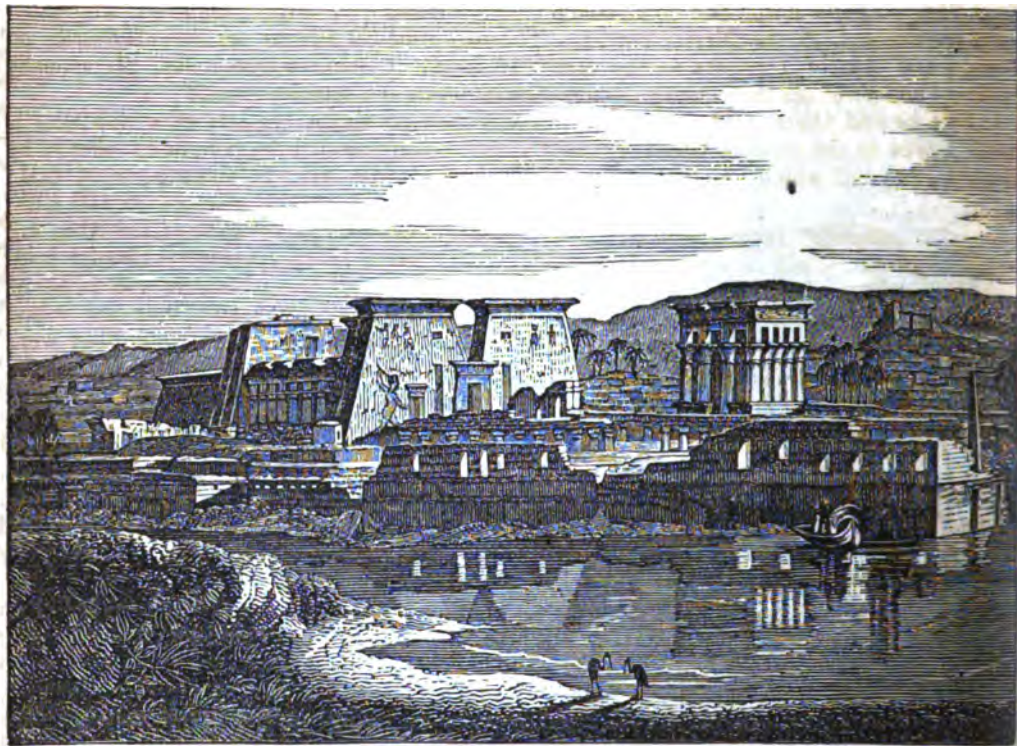
The Nubians are well made, muscular, strong, and handsome, with thick but not woolly hair, and little beard. The women are often handsome, and have generally a sweet expression and engaging manners; they are favorably distinguished from the Egyptians by their superior morality. The complexion of the Nubians is quite dark, but they have not the negro physiognomy. Coarse woolen mantles and mats, drinking-cups, and dishes woven from palm leaves, are their only manufactures. Most of the Nubians are Mahometans; but in the south are some heathens; the Arabs, who are the ruling people in many of the States, are also Mahometans. The ruling people in Sennaar are the Shillooks, a black race from Nigritia, who conquered the country in the 16th century. The wandering tribes of the eastern deserts are Bisharians, Ababdes, &c. They are often at war with each other, and are faithless and treacherous to strangers.

The chief article of food is a coarse cake made of *dourra*. Much tobacco is raised. Palm wine is used, and also a liquor called *bouza*, resembling beer, and made of dourra or barley. Burckhardt describes the Nubians as a well-formed race, though lean, and the women, though not handsome, are the most virtuous of all the females of the East. The inhabitants with whom Burckhardt traveled were not addicted to plundering or pilfering. That part of Nubia which borders on the Nile, is strewed with antiquities, generally subterranean, or excavated from rocks. One of the most interesting is the temple of *Ebsambal*; it is cut from a perpendicular cliff. At the entrance are six erect colossal figures, measuring, from the ground to the knee, six feet. Near the temple are four other statues nearly buried in sand. The one which is the most exposed, measures seven yards across the shoulders.

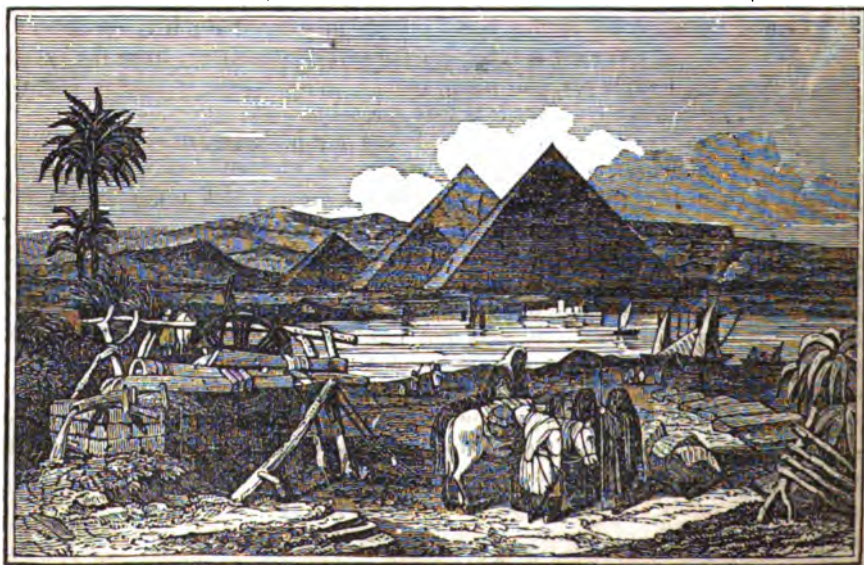
The people of Sennaar are nearly negroes. Some are idolaters, others Mahometans, but they eat pork freely. Sennaar is included in the recent conquests of the Pasha of Egypt. The Shillooks, a race of negroes, in 1504 invaded the country and rendered the inhabitants tributary.

6. *History.* Nubia was known to the ancients under the name of Ethiopia, and appears to have been at a very early period, the seat of a powerful empire and a civilized people. Egypt was repeatedly conquered from this quarter, and, indeed, according to some, she derived her arts and wisdom from Ethiopia. Neither the Persians nor the Romans, the Saracens nor the Turks who reduced Egypt, were able to subdue this country, which early received and long retained the Christian religion, but by some unknown agency has in modern times become Mahometan. But split up into numerous petty States, and torn by the dissensions of rival chieftains, Nubia has sunk into a low state of barbarism, and the late conquest by Mehemet Ali may be the first step of its regeneration.

CHAPTER LXXXIII. EGYPT.

*Architecture of Ancient Egypt.*

1. **Boundaries.** Egypt is bounded north by the Mediterranean Sea ; east by Arabia, and the Red Sea ; south by Nubia ; and west by the Great Desert. It extends from latitude 23° to 32° N., and from longitude 24° to 35° E., being about 600 miles in length from north to south, and about 400 in breadth ; and having an area of 186,000 square miles, and a population of 2,500,000 inhabitants.

*View on the Nile.*

2. *Rivers.* The only river is the *Nile*, which is formed in Nubia by the junction of two great streams, the *Bahr el Azrek*, which rises in Abyssinia, and the *Bahr el Abiad*, which is supposed to have its sources in the Mountains of the Moon, to the southwest. Traversing Egypt from south to north, the Nile, below Cairo, divides into several branches, which discharge its waters into the Mediterranean. The two principal mouths are that of *Rosetta* on the west, and that of *Damiatta* on the east. Its length is about 2,400 miles. It annually overflows, and fertilizes the country upon its banks during the summer months.

3. *Surface and Oases.* The northern or lower part of Egypt consists of a rich alluvial plain. Egypt to the south of Cairo, is a long valley, through which the Nile flows, shut in by mountains, beyond which, on both sides, are vast sandy deserts. In some parts of these

deserts, at the distance of 100 miles or more to the west of the Nile, are small fertile spots of cultivated land, situated like islands in the midst of an ocean of sand; they are called *oases*, the name by which they were known to the ancient Greeks, and by the Arabs *Elwah* or *Wady*. The Great Oasis west of Thebes, is 100 miles in length from north to south, and 15 or 25 in breadth. That of *Sivah* is about 6 miles long, and 4 wide. A large proportion of this space is filled with date-trees, which afford the chief food of the inhabitants. The dates are gathered in the manner represented in the subjoined cut. There are also cultivated pomegranates, figs, olives, apricots, and plantains, and the gardens are remarkably flourishing. A considerable quantity of rice is cultivated here. This has been supposed to be the oasis where the famous temple of Jupiter Ammon formerly stood. Mr. Browne found here the ruins of an ed-



Gathering Dates.

ifice which appeared to be the work of the ancient Egyptians, as the figures of Isis and Anubis were conspicuous among the sculptures. Here are also catacombs, or ancient places of sepulture.

The mountains, which border the Nile, in Lower Egypt, are of a calcareous nature; but this composition ceases about 60 miles to the northward of the cataracts, and is succeeded by freestone, in beds; and, near Syene, granite and syenite, which takes its name thence, are the chief component parts. In the eastern chain, abrupt precipices frequently appear, resembling long walls, and approaching the banks of the river.

4. *Lakes.* In Lower Egypt are several lakes, the largest of which is the lake of *Menzaleh*, which is separated from the Mediterranean only by an extremely narrow ridge of land, and communicates with that sea, by 1 or 2 outlets. It is 50 miles long, and from 2 to 12 broad. The lake of *Bourlos*, which adjoins, in like manner, to the Mediterranean, between Damiatta and Rosetta, is 25 miles long, and about 8 broad. The ancient lake of *Mareotis*, is now almost dry, although the sea has been admitted into it. The *Natron Lakes*, in the desert, produce natron, or soda, a substitute for barilla.

5. *Minerals.* Egypt appears not to be productive of any metals, except a small quantity of iron; but the mountains contain various kinds of marble, as porphyry, the celebrated *verde antico*, or green marble, with white and dark spots, and many valuable gems, as the emerald, topaz, chalcidony, onyx, &c.

6. *Climate.* Rain rarely falls in Egypt, and only in light showers, for a few minutes; thunder and lightning are equally unfrequent. During 8 months in the year, from March to November, the heat is almost insupportable to a European. The other months are comparatively temperate. The southerly winds, which sometimes blow in Egypt, are, by the natives, called

khamsin, that is, the *hot winds of the desert*. They are of such extreme heat and aridity, that no animated body, exposed to them, can withstand their pernicious influence. During the 3 days of the southern blast, the streets are deserted; and woe to the traveler, whom this wind surprises, remote from shelter; when it exceeds 3 days, it is insupportable. Very frequently, the inhabitants are almost blinded with drifts of sand; but these evils are, in a great measure, remedied, by the rising and overflowing of the Nile.

7. *Canals*. Egypt contains a great number of canals, many of which are only adapted for purposes of irrigation. The principal canals of navigation, are *Joseph's Canal*, about 100 miles in length, and from 50 to 300 feet broad; the *Canal of Cleopatra*, recently restored, under the name of the *Mahmoud Canal*, connecting the Nile with the Mediterranean, at Alexandria, 48 miles long, but so unskillfully constructed, as to be already choked with mud; and the *Abu Meneggy Canal*, passing from the Nile to the sea, on the northeast, about 100 miles in length.

8. *Towns*. *Cairo*, or *Kahira*, in a sandy plain, on the banks of the Nile, is a large town, of the most irregular construction. The streets are so narrow, that the balconies of the opposite houses often touch each other, and many of them are roofed quite over. A part of the town is annually inundated. The houses are, in general, built of mud and bricks, of 2 or 3 stories high, and, being without windows on the street side, they present a gloomy appearance. Those of the public dignitaries, have a basement of stone, each layer of which is painted red, or green, and each story is provided with a balcony. In the basement story, is a large hall, where the master gives audience, and also another hall, paved with marble, and supplied with sofas and *jets d'eau*. A great number of mosques, many of which are elegantly decorated with arabesques, and light and rich minarets; 1,200 coffee-houses; 31 bathing-houses, remarkable for their size or ornaments; the vast cisterns, or reservoirs, containing a supply of water, for the people, many of which are adorned with marble colonnades, and bronze balustrades, and have schools attached to them, &c., deserve notice. *Cairo* is the centre of an extensive traffic between Asia and Africa, and contains about 300,000 inhabitants. The viceroy resides, generally, at *Shoubra*, a little village in the vicinity, where he has built a splendid palace, with fine gardens.

A little higher up the river, are the ruins of the ancient *Memphis*, once the capital of Egypt, and the centre of Egyptian wealth, commerce, and art.

Alexandria stands upon the Mediterranean, and has a double harbor. Its site is a narrow neck of land, between lake Mareotis and the sea. It communicates with the western arm of the Nile, by a canal. This city was founded by Alexander the Great, and soon rose to wealth and greatness. It was the capital of the Ptolemies, and, for science and literature, was second only to Rome. It contained, at one time, 600,000 inhabitants. After its capture, by the Saracens, it began to decline, and the discovery of the passage to India, by the Cape of Good Hope, destroyed its commercial importance. At present, it consists of narrow, crooked, and dirty streets, and is surrounded by a high stone wall. It has considerable commerce, and its markets are well supplied. Population, 25,000. The remains of ancient art, in Alexandria, are not of Egyptian, but of Grecian or Roman origin, and, in comparison with the pyramids, are quite modern. What is called Pompey's Pillar, is a Corinthian column of porphyry, about 120 feet high, of uncertain origin; Cleopatra's Needle, is an obelisk of granite, about 64 feet in length, and covered with hieroglyphics.

Rosetta stands on a branch of the Nile, 4 miles from its mouth. It is completely environed in groves of orange, sycamore, date, banana, and other trees. The city has a considerable trade, and upwards of 50 caravanserais. Population, 10,000. *Damietta* is situated between the eastern branch of the Nile and the lake of Menzaleh, 10 miles from the sea. The houses are all white, and are built in a crescent, around a bend of the river. The appearance of the town is beautifully picturesque, and the country in the neighborhood is the most fertile and best cultivated in Egypt. Here are vast magazines of rice, belonging to the government. The commerce of the place is very active. Population, 25,000. *Suez*, on the shore of the isthmus of that name, on the Red Sea, has a large trade with Arabia, by caravans and vessels. It is surrounded by a sandy desert. Population, 5,000.

Ascending the Nile, from *Cairo*, we come to *Medinet el Fayoum*, the ancient *Arsinoe*, with 12,000 inhabitants, and connected with the river by a canal. *Siout*, remarkable for its sepulchral grottoes, is a considerable town, with 20,000 inhabitants, from which the caravans of Nubia and Nigritia start. *Esne*, with 4,000 inhabitants, is the rendezvous of Sennaar and Darfur caravans. *Assouen*, the ancient *Syene*, is the last town in Egypt, as you ascend the Nile.

Coaseir is a seaport, on the Red Sea, and has some trade in corn. The country around it, is a desert. *Kenne*, on the Nile, west of *Coaseir*, is a place of considerable trade. *Thebes*, *Luxor*, *Esne*, *Syene*, *Elephantine*, *Philæ*, *Ghizeh*, and many others, are remarkable for their antiquities.

9. *Agriculture*. Whoever is in the least acquainted with geography, knows, that the vast fertility of Egypt is not produced by rain (little falling in that country) but by the annual overflowing of the Nile. It begins to rise when the sun is vertical in Ethiopia, and when the annual rains fall there, from the latter end of May to September, and sometimes October. At the height of its flood, in the Lower Egypt, nothing is to be seen in the plains, but the tops of forests and fruit-trees, the towns and villages being, for that reason, built upon eminences, either natural or artificial. When the river is at its proper height, the inhabitants celebrate a kind of jubilee, with great festivity. The banks, or mounds, which confine it, are cut by the Turkish *ashas*, attended by his grandees; and, after this ceremony, the water is led into what they call the *khalij*, or grand canal, which runs through Cairo, whence it is distributed into cuts, for supplying the fields and gardens. The irrigation is effected by machinery. This being done, and the waters beginning to retire, such is the fertility of the soil, that the labor of the husbandman is next to nothing. He throws his wheat and barley into the ground in October and May. He turns his cattle out to graze in November; and, in about 6 weeks, nothing can be more charming, than the prospect which the face of the country presents, in rising corn, vegetables, and verdure of every sort. Oranges and lemons perfume the air; dates, grapes, and figs, cheer the eye; and palm-trees, which afford the means of making wine, are blooming and abundant. The culture of pulse, melons, sugar-canes, and other plants, which require moisture, is supplied by small, but regular cuts, from cisterns and reservoirs. March and April are the harvest months, and they produce 3 crops; one of lettuces and cucumbers (the latter being the ordinary food of the inhabitants), one of corn, and one of melons. The Egyptian pasturage is equally prolific, most of the quadrupeds producing 2 at a time, and the sheep 4 lambs in a year. Among the vegetable products of Egypt should also be mentioned the papyrus, of which the ancients made their paper, though their mode of preparing it is now unknown; and the lotus, a kind of water-lily, abounding in the Nile. The pith of the papyrus is said to be a nourishing food. The trees are the sycamore, acacia, willow, &c.

The Egyptian mode of hatching chickens in ovens is very curious, and has been practised in Europe with success. Not less extraordinary and ingenious is the manner of raising and managing bees in that country. When the verdure and flowers fail in one part of Egypt, the proprietors of bees put their hives on board of large boats, each marking his own hive. The boatman proceeds with them gently up the river, and stops with them wherever he perceives flowery meadows. The bees swarm from their cells at break of day, and collect honey, returning several times loaded with what they have obtained, and in the evening reënter their hives, without ever mistaking their abode. Cotton is raised in great abundance in Egypt. It is sown in April, and the land is irrigated by the Nile. The neighborhood of the river is preferred for its cultivation. The plough is generally used. The cotton is of two distinct kinds, the common Egyptian cotton, and the *maho*; both, however, are native.

10. *Commerce*. The exportation of cotton promises to constitute in future an important item in the commerce of Egypt. Until 1822, the cotton raised here was of an inferior quality. Since then a better sort has been introduced little inferior to the Sea Island. The crop is now 20,000,000 lbs. Caravans perform the trade with Abyssinia, Darfur, Sennaar, Barbary, and Syria. There is also a trade with the ports on the Red Sea.

11. *Manufactures*. The present sovereign of Egypt has made strenuous exertions for the promotion of manufactures. Cotton and woollen cloths are made in Esneh, Boulak, and other places. Linen is manufactured at Siout. There are also some manufactures of silk, salt-petre, and earthen ware.

12. *Population, Military Force, Revenue, &c.* The population is about 2,500,000. The military force is 75,000 men, disciplined and armed in the European mode, beside the irregular forces of the country. The troops are chiefly Arabs and Syrians. The navy was nearly annihilated at the battle of Navarino, but still consists of 12 ships of the line, 15 frigates, and 40 smaller vessels. The revenue of the government is estimated at 20,000,000 dollars.

13. *Inhabitants*. The inhabitants of Egypt are various and distinct. The most numerous are the Fellahs or Arab cultivators, the descendants of the ancient conquerors, who form more than four fifths of the whole population. These are well-formed and active, though lean.



Egyptian Women.

They have fine teeth, and sunken sparkling eyes. The Copts are generally considered

as the descendants of the ancient Egyptians, though it is said, that the ancient sculptures, and the skulls of the mummies, have a greater resemblance to the heads and features of the Nubians than of the Copts. The Copts are nearly of the same color with the mulattoes. They have small black eyes, high cheek bones, short, elevated noses, large mouths, thick lips, slight beards, and half-woolly hair. Some of the females are fair and handsome, and they are generally distinguished for a graceful carriage. The Copts reside chiefly in Upper Egypt, and do not exceed 160,000 souls. Besides these, there are in Egypt Arabian Greeks, Jews, Syrians, Armenians, Turks, Albanians, Franks, Ethiopians, &c.



Syrian.

Egyptian Woman.

Kurd.

The *Mamelukes*, till lately, were a fourth race of people that inhabited Egypt. This extraordinary race consisted of Georgian and Circassian slaves, who, under the Fatimite Khans, were brought into the country, and being trained to arms became part of the military power of the state. They were thus enabled to rise against their masters, to massacre or expel them, and to assume the dominion of Egypt. By an unheard of caprice they transmitted their power, not to their children, whom they despised and neglected on account of their being reared in a harem, but to new bands of slaves, brought from the same place, and in the same manner as themselves. They were the rulers, indeed, but might with more propriety be styled the plunderers of Egypt, filling it with scenes of violence, and extorting vast sums, without affording any of those benefits or that protection which a government owes to its subjects. They excelled, however, in feats of arms, and formed the best cavalry in the



Mamelukes.

Turkish empire. They made a most vigorous resistance to the best troops of France, but were considerably broken by repeated defeats during the invasion by that power. After the evacuation of Egypt by the British, a war of extermination was waged by the Turks against the Mamelukes. Ali Pasha having succeeded in driving them from Ibrim, where they made their last stand, compelled them to retreat to Dongola the capital of Nubia, and, still more recently, into Darfur, where it is probable they will soon become extinct.

14. *Dress.* The modes of dress are as various as the classes of people, and the costume of many nations gives a lively appear-

ance to the streets of Cairo. The usual dress has considerable resemblance to that of Turkey. The Arabs, who are the most numerous class, wear trowsers of blue or white cotton, and a long tunic of the same. Those who are able wear a red woollen cap. Turbans also are worn. The females in public are closely veiled. The present ruler, however, has made great efforts to introduce the European costume, and many of the inhabitants have substituted the hat for the cap, and retrenched the fulness of their dress.

15. *Language.* The common language is the Arabic, and among merchants the *lingua franca*. The Coptic is the most ancient tongue, but it is not spoken. It is used by the Copts in worship, and there is in it a version of the Scriptures. It is the oldest language, being that of the ancient Egyptians, though it is mixed with Greek and Arabic.

16. *Manner of Building.* In the towns, the houses are generally square, with flat roofs, and built without much regard to elegance. Many of the Arabs live in tents, or rude huts. The Arabs of Goornoo live in the passages of the ancient tombs, which they divide with par-titions of clay.

17. *Food and Drink.* Egypt is the land of abundance. In many places, there are 3 har-vests. Food is extremely cheap, and yet many inhabitants suffer under privations. The common food is *pilau*, or boiled rice and rancid butter, bread of millet, and dates. Some mutton and poultry is consumed, and much buffalo-milk. The water is that of the Nile, col-lected in cisterns. It is considered very salubrious. *Rakee* is consumed in considera-ble quantities, and many drink it to intoxication. Smoking is as general as it is in Turkey. In Upper Egypt, 1,000 eggs, or 14 fowls, may be purchased for a dollar. The same sum will purchase a great number of pigeons.



Caravan resting at night.

18. *Diseases.* The most common diseases are hydrocele and ophthalmia; the most fatal, plague, dysentery, and fevers. European physicians are in great request; though barbers are generally the chief surgeons. Charms and amulets are resorted to, in cases of disease.

19. *Traveling.* The general mode of traveling, is on camels, horses, or in boats on the Nile. The caravans will be described under Asia. At present, trav-elers may go safely, though not with much comfort, to the most interesting ruins, including The-bes, Siwah, and Elephantine.

20. *Character, Manners, &c.* The people are so various, that

the customs are therefore different, in the different classes. The Arabs are cheerful, quiet, and have many good qualities. The Jews are filthy and avaricious. They, with the Copts, are generally merchants and officers of the customs. The Bedouins, or pastoral Arabs, are warlike and free, living by plunder, as much as by industry. The inhabitants of the cities are indolent and sensual. They have little employment, and their amusements are of a depraving kind. Women are veiled and secluded, as in all oriental countries, but they have still much freedom. Beauty is esteemed by weight, as in many Mahometan countries. The modern Egyptians are so inert, that they have hardly a national character. They have many things in common with the mass of orientals. The Copts are dexterous and adroit, and receive sufficient education for clerks and accountants, and they generally fill these offices. As in other Mahometan countries, the Christian remarks various trifling practices, totally at variance with those to which he has been accustomed. He will remark, that the beard is worn, and the hair shaven; that the men wear petticoats and trowsers, and the women trowsers. Fingers supply the place of forks, a cushion is used instead of a chair, and a tray, instead of a table, is set upon the floor. To inquire for the health of the ladies of a family, is a mortal affront to the master, and to praise his children, is to be suspected of fascination, and the "evil eye." Females hide their faces, and display their bosoms. Many things seem to be studiously adhered to, because they are at variance with European usage. The morality and religion differ less than the manners; and an Englishman, says Madden, calls oriental courage, ferocity; religion, fanaticism; wisdom, craft; policy, perfidy; philosophy, taciturnity; dignity, arrogance; sentiment, sensuality. On the other hand, a Mahometan considers European morality to be infidelity; science, witchcraft; precaution, impiety; peacefulness, imbecility, &c.

21. *Amusements.* In Cairo, the inhabitants delight in the exhibitions of wrestlers, rope-dancers, &c. Swimming is a common amusement, and it is common to see a party of youths, swimming far into the Nile, to visit a distant village. Sometimes they float downwards, on their backs, holding a pipe in their mouth. The exhibitions of the serpent-charmers are terrific. They handle the serpents with perfect familiarity, and are seldom bitten, or have deprived the reptiles of the power to do harm. The dancing women are numerous. They perform in public, and also in the harems. Their exhibitions conform to the state of moral sentiment, and are, of course, such as would not be tolerated in Europe.

22. *Education.* Among other means of raising the character of the people, the present ruler has established a college at Boulak, near Cairo, which, several years since, had 700 students. Various books were translated for the use of the institution, and instruction given in the French and Italian languages. The general mass of the people, however, are sunk in ignorance. The arts are in a state equally low.

23. *Religion.* The general religion is the Mahometan. The Copts, however, profess Christianity, though they practise circumcision. They have auricular confession. Marriages are generally contracted by the intervention of friends, and frequently the parties do not see each other till the ceremony. The wedding is attended with rejoicings. The females are often married at 15, and at an earlier age, and are past their prime soon after 20.

24. *Government and Laws.* Egypt is under the rule of a Pacha, nominally subject to Turkey, but substantially independent. Ali Pacha, the late ruler, passed many good and useful laws, but the country is, nevertheless, much depressed. Various losses had compelled him to raise a revenue from the small gains of the industrious, and the Fellahs receive so little of the crops, that they would cease to cultivate the earth, unless compelled to plant and to sell the produce to the Pacha. Of course, he sets the price; and, moreover, makes a part of the payment in his own merchandise. Ali mistook the resources of the country, and the disposition of the people in establishing his immense manufactories of cotton. Agriculture is the true wealth of Egypt, and the manufactures have impoverished the country. To Egypt belong, beside the country of Egypt proper, part of Nubia and Nigritia, and the isle of Candia. Syria and the Arabian provinces have been restored to Turkey. These possessions contain about 400,000 square miles, and 400,000,000 inhabitants.

25. *Antiquities.* Egypt is to be seen in the past more than in the present; in the vast and wonderful masses, shaped by labor and art into structures, that defy the power of time. Everything raised by the ancient Egyptians seemed to be designed for the latest posterity. All the designs were vast, all their remaining edifices present a sort of barbaric grandeur. The mechanical labors and monuments of the ancient Egyptians were designed wholly for pomp and show, little in the spirit of modern times. The traveler, landing at Alexandria, will see, among

*Image of Osiris.**Image of Isis.**Ruins of an Egyptian Temple, dedicated to the god Isis.*

other ruins, less distinct, the pillar which bears the name of Pompey, and the obelisk, called Cleopatra's Needle. Alexandria has other magnificent remains, such as prostrate

*Cleopatra's Needle.*

rows of marble columns, and mutilated capitals. Pompey's pillar stands upon a pedestal, 12 feet high. The shaft is round, and, with the Corinthian capital, 100 feet in height. The diameter is 9 feet. Cleopatra's Needle is of one shaft, of granite, covered with hieroglyphics. It is about 64 feet high, and 8 feet square at the base. The ruins of Alexandria would, in any country but Egypt, be, themselves, antiquities; but, in the country of the pyramids, they are comparatively recent. There are great numbers of pyramids scattered over Egypt, but the most remarkable are those of Djizeh, Sakbara, and Dashour. The most wonderful of all are those of Djizeh. When several leagues distant from the spectator, they seem near at hand, and it is not till after having traveled several miles, that he is fully sensible of their size. They are on the platform of a rock, situated 150 feet above the level of the desert. The largest is ascribed to Cheops. Ten years were consumed in preparing a road, whereon to draw the immense blocks of stone, and the labors of 100,000 men were employed, who were relieved once in three months. Such is the account of Herodotus.

The great pyramid covers an area of about 11 acres, and rises 127 feet above the cross of St. Paul's, in London, or 480 feet. The base is 750 feet. The pyramids face the cardinal points, and the entrances in those which have been explored, descend at exactly the same angle, and at the same part of the fabric. Various passages and chambers have been discovered

by great labor, and wells or shafts conducting from above to the lower apartments. The entrances were artfully concealed in the wall, 30 feet or less above the base. The passages were sometimes stopped with a solid block of granite, made, however, to slide upwards, by the force of a lever. In the Pyramid of Cephrenes, Belzoni found the central chamber 46 feet in length, about 16 feet wide, and nearly 24 feet high, hewn from the solid rock. The pyramids are composed of immense blocks of stone, laid upon each other in the receding manner of steps. It is supposed that these steps were formerly filled up with stones, which have been

*The Sphinx.*

found to be 33 feet wide, and the entire length of the Sphinx about 130. The back is now covered with sand.

The site of Memphis has been disputed, for Egypt has so many ruins, that the question might easily arise. It has, however, been decided, by finding the remains of one of the Colossi described by Herodotus; that is, a wrist, which shows that the entire statue must have been 45 feet high. Dendera, the ancient Tentyra, has some magnificent remains, particularly the gateway leading to the temple of Isis, and the temple itself. The edifice is nearly entire. The portico has 24 columns in three rows, each 32 feet high, and more than 22 feet in circumference.

*Ruins of Thebes.*

they are full of beauty and grace. The temple here has no parallel for magnitude and beauty. The masses are prodigious. There are 12 principal entrances, each of which is composed of several propyla and colossal gateways, in themselves larger than most other temples. The sides of some are larger than the bases of the greater number of the pyramids of Middle Egypt. On each side of many of these are colossal statues of granite, and basalt, from 20 to 30 feet high. Of the avenues of sphynxes, that lead to the temple, across the plain, one extends 2 miles nearly to the temple at Luxor. There are other columns before the traveler reaches the body of the temple, after which are 4 beautiful obelisks, marking the entrance to the adytum. The sanctuary has 3 apartments of granite. The roof of the central room, which is 20 feet long, and 16 wide, is composed of 3 blocks of granite, for the arch was unknown to the Egyptians. The imagination can hardly embrace the magnitude of this temple. Of the hundreds of columns, the smallest is $7\frac{1}{2}$ feet in diameter. The field of ruins is a mile in diameter, and the temple itself, grand as it is, sinks into insignificance, when compared with the number and size of the surrounding monuments, gateways, subordinate temples, and rows of sphynxes. In approaching the temples of Luxor from the north, the observer comes first upon a stately gateway 200 feet long, and 57 feet above the present level of the soil. In front are two of the most perfect obelisks in the world, each of a single block of red granite.

removed as the materials for other edifices. The Sphinx, which is near the pyramids, is almost buried in sand; the head and neck only appear. Caviglia, however, caused it to be excavated and measured. The form is that of a woman's head and breast, on the body of a lion, in a recumbent posture; the paws stretched out 50 feet in advance of the body. The whole, except the paws, which are of masonry, was cut from the solid rock. The features have the Nubian cast, and a very placid expression. The head and neck, all that is above ground, are 27 feet high. The breast was

executed with great skill. All travelers unite in extolling this temple. At Thebes, "the hundred gated," there is a vast extent of ruins. Thebes is now to be traced in four small hamlets, for the inhabitants have built their villages among the ruins of temples. These villages are Karnak, Luxor, Medinet Abou, and Gornou. A description, or painting, can convey an idea of the profusion of pillars standing prostrate, or reclining against each other at Karnak. These pillars are covered with sculptures, not unnatural and grotesque, but, though much larger than life,



Ruins of Temples at Luxor.

of the edifice. But Luxor and Karnac are but half of ancient Thebes. On the western side of the river are structures equal in their style of architecture. The Memnonium, or Temple



Ruins of the Temple of Memnon.

of Memnon, looks towards the east, and is fronted by a stupendous pylon, of which 234 feet are still remaining. The statue of Memnon is overthrown and shattered. It was 26 feet broad between the shoulders, 54 feet round the chest, and 13 from the shoulder to the elbow. The statue commonly called that of Memnon, is one of two, about 52 feet high. The stones on which they rest are 30 feet long, and 18 broad. These statues are mutilated. One of these, is that which emitted a sound at the dawn of day. The fact is attested by many writers who heard it, but the reason it is hard to explain. The Necropolis or city of the dead, is connected with the great Egyptian capital. The mountains were hollowed out for the tombs of the inhabitants. These excavated mountains contain halls and rooms innumerable. The walls are freshly painted, and some of the sarcophagi were monuments of art. The mummies are sought with avidity as an article of commerce. Some few of them have glass eyes adapted with great skill. There are other temples no less imposing in structure and sculpture, than those described at Edfou, and many other

places. None of them can be described, and a sight of them is more like a wild dream than reality. The pillars, sides, &c., are generally sculptured with hieroglyphics, those mysterious characters, that have for tens of centuries defied all skill to decipher until recent discoveries.*

Near Medinet el Fayou travelers have thought they had discovered the ruins of the labyrinth; this remarkable building is described in terms of admiration by an ancient Greek traveler, Herodotus, as the greatest triumph of human industry and art; it was composed of 12

groups of characters resembling each other, which were, therefore, considered as representing these names. A variety of similar coincidences were detected, and especially that between a certain assemblage of figures and the word Ptolemy, which occurred no fewer than fourteen times; and hence, as the Greek was known to be a translation of the Egyptian symbols, the task of the decipherer was limited to a discovery of the alphabetical power of the several marks, or objects, which denoted that particular name. It was by pursuing this path, that success was ultimately attained. It was satisfactorily made out, that hieroglyphics not only expressed ideas, or represented

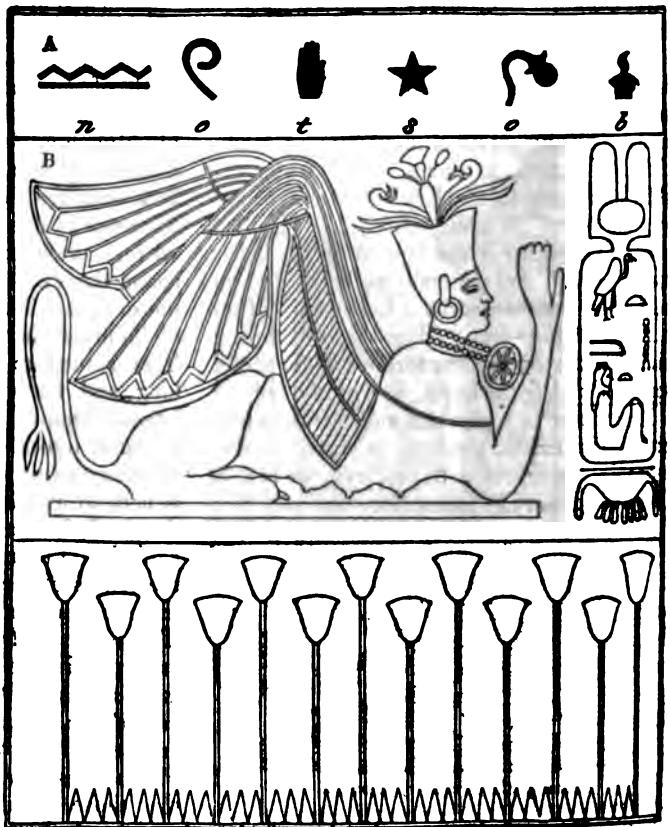
covered courts, and 3,000 rooms, of which half were under ground. The latter he was not suffered to enter, as they contained the bodies of the sacred crocodiles, and of the twelve kings, who had constructed the labyrinth. But the infinite number of winding passages in the upper part of the building, the rich sculptures which adorned the marble walls and ceilings, and the dazzling whiteness of the polished columns, filled him with astonishment.

26. History. Egypt is one of the most renowned countries in the world. The sovereignty of the country has passed successively through the hands of its native princes, the Greeks, Romans, Saracens, and Turks. It was invaded by the French, under Bonaparte, in 1798; but in 1801, the country submitted to the British, and at the peace of Amiens, it was restored to the Ottoman Porte. Ali Pacha was compelled by the allied powers to acknowledge the sovereignty of Turkey, but Egypt is substantially independent.

things, but also, that they were frequently used as letters; and that, when employed for the last of these purposes, the names of the several objects in the language of the country supplied the alphabetical sounds which composed any particular word.

"The first steps which led to this important discovery were made by Dr. Young, who ascertained that certain figures in the group, corresponding to the word Ptolemy, were used alphabetically and represented sounds. Hence the distinction of *phonetic hieroglyphics*, as opposed to those which are understood to denote objects only. A key was thereby found for unlocking the storehouses of Egyptian learning, which had remained inaccessible to many generations; and, whether the treasure shall prove equal in value to the expectations which have been entertained of it, there is now the greatest probability that the famed wisdom of one of the most ancient nations of the world shall be rendered familiar to the modern reader. Already, indeed, history and chronology have received essential aid from the investigations of recent travellers, guided by the light which has just been revealed. The names of some of the most distinguished Egyptian princes, even of the Pharaonic dynasties, have been deciphered from monuments erected during their respective reigns. The canon of Manetho, which it had been so common to treat with contempt, has been verified in many points; and in this way the titles of several monarchs which had been abandoned as fabulous, including Misphragmuthosis, Rameses, and Sesostris, are once more restored to the page of authentic history, and to their place in the succession of Egyptian sovereigns.

"Leaving it to the historian of this remarkable discovery to detail the incidents which accompanied the investigations of Dr. Young, Silvestre de Sacy, Akerblad, Salt, and Champollion, we confine ourselves to the statement of the important fact, that, from a copious induction of instances, extending in some cases to several hundreds for a single character, the last of these authors has completely ascertained, that every *phonetic hieroglyph* is the image of some physical object, whose name, in the spoken



Egyptian Hieroglyphics.

language of Egypt, begins with the sound or letter which the sculptured figure was destined to represent. Thus the image of an eagle, which in the Coptic is *Ahem*, became the sign of the vowel A; that of a small vase, called *Berte* in Egyptian, stood for the consonant B; that of a hand, *Tot*, represented the letter T; that of a hawk, *Kolebin*, was the sign of the consonant K; that of a lion or lioness, *Labo*, the sign of the consonant L; that of a spee-tioorax, *Mowledj*, the sign of M; that of a fete, *Sib*, and *jo*, the sign of the consonant S; that of a mouth, *R*, the sign of the consonant R; and the abridged image of a garden, *Shen*, the sign of the compound articulation Sh.

CHAPTER LXXXIV. AFRICAN ISLANDS.

1. Of the African islands, some lie in the Eastern or Indian Ocean, and some in the Western, or Atlantic. We shall begin with those in the Indian Ocean; the chief of which are, Socotra, the Comoro islands, Madagascar, Mauritius, and Bourbon.

2. *Socotra* is situated 30 leagues to the eastward of Cape Guardafui. It is 80 miles long, and 50 broad, and has 2 good harbors. It is very well peopled, and yields most of the fruits and plants, which are usually found within the tropics, with frankincense, gum-tragacanth, and aloes. The inhabitants are of Arabian extraction, and are under the government of a prince, or sheik, who is dependent upon the Imam of Mascat.

3. The *Comoro Isles* are five: Joanna, Mayotta, Mohilla, Angazei, and Comoro. The Grand Comoro is 50 miles long, and 15 broad, and is chiefly composed of mountains, which unite near the centre, where the summit is about 7,500 feet in height. Joanna, or Hinzuan, is about 30 miles long, and 15 broad, and affords plenty of provisions and tropical fruit. The inhabitants are partly of Arabian descent, and partly of African origin, and are, in general, mild and humane. This group was formerly populous and flourishing, but is now rendered almost desolate, by the piratical incursions of Madecassée pirates, who have carried off great numbers of the inhabitants, as slaves. *Admiralty Isles*, to the northeast, are a group of 11 uninhabited islets, belonging to the English, which are merely visited for catching turtles. The *Seychelles* are a cluster of 30 islets, also belonging to the English.

4. *Madagascar* is the largest of the African islands, being above 900 miles in length, from north to south, and generally between 200 and 300 miles broad, with an area of 200,000 square miles. It is traversed by a lofty chain of mountains, some of the summits of which reach the height of 11,000 feet. The sea rolls with great rapidity, and is extremely rough, between this island and the continent, forming a channel or passage, through which European ships, in their voyage to and from India, frequently sail.

Madagascar is a pleasant and fertile country, abounding in sugar, honey, fruit-trees, valuable gums, corn, cattle, poultry, precious stones, iron, some silver, copper, and tin. It affords an agreeable variety of hills, valleys, woods, and plains; and it is watered by numerous rivers. The air is generally temperate, and said to be very healthy, though in a hot climate. Among the inhabitants are white and black tribes, and also people of color. The whites, and those of a tawny complexion, who inhabit the coasts, are the offspring of the Arabs, as is evident from their language and their religious rites; but here are no mosques or temples, nor any stated worship, except that they offer sacrifices of beasts on particular occasions; as when sick, when they plant yams or rice, when they hold their assemblies, circumcise their children, declare war, enter into new-built houses, or bury their dead. Some of their ceremonies and practices resemble the Jewish, whence it had been conjectured, that they are the posterity of Jews, who formerly sojourned here. But the Madecassées, who are of Malay extraction, form the bulk of the inhabitants. Some of the black tribes have woolly hair, but whether they are the aborigines, or of African origin, is unknown. This island was discovered by the Portuguese, and the French took possession of it in 1641; but, the people disliking the government, they were driven out in 1652; since which time, the natives have had, with the exception of a few settlements of Europeans, the sole possession of the island, under a number of petty princes, who make war upon each other for slaves and plunder. In 1828, the kingdom of Madagascar was a powerful state, which had reduced to subjection the greater part of the island; the prince was an intelligent man, who sought to civilize his subjects by inviting missionaries into the kingdom, and sending some young men into European countries to be educated. He had, also, introduced horses and firearms into his army, which was organized on the European model. But he was unfortunately poisoned by his queen, and his death was a signal for insurrection and civil war.

5. *Mauritius* was so called by the Dutch (who first touched here in 1598), in honor of prince Maurice, their stadtholder; but it is now generally styled the Isle of France. It is about 400 miles east of Madagascar. It is of an oval form, about 140 miles in circumference, with a fine harbor, secure against any wind that blows, and 100 fathoms deep at the entrance. The climate is healthy and pleasant. The mountains, of which there are many, and some so high, that their tops are covered with snow, produce excellent ebony, beside various other kinds of valuable wood, two of which greatly resemble ebony in quality; one red, the other

yellow. The island is well watered, and though the soil is not the most fruitful, yields plenty of tobacco, rice, fruit, cotton, indigo, sugar, and cloves, and seeds a great number of cattle, deer, goats, and sheep. It was formerly subject to the Dutch; but the French gained possession of it in 1715. By the English it was taken in 1810, and is still in their possession. Population, 100,000, three fourths of whom were slaves, previous to the general emancipation in the British colonies.

6. *Bourbon* is situated about 300 miles east of Madagascar, and is about 90 miles in circuit. There are many good roads for shipping, round Bourbon, particularly on the north and south sides; but hardly a single harbor, where ships can ride secure against those hurricanes, which blow during the monsoons. Indeed, the coast is so surrounded with blind rocks, sunk a few feet below the water, that coasting is at all times dangerous. On the southern extremity is a volcano, which continually throws out flames and smoke, with a hideous roaring noise. The climate, though extremely hot, is healthy, being refreshed with cooling gales, that blow in the morning and evening, from the sea and land; sometimes, however, terrible hurricanes shake the whole island almost to its foundations; but, generally, without any other bad consequence, than frightening the inhabitants. The island abounds in springs and brooks, and produces aloes, white pepper, ebony, palm, and other kinds of wood, and fruit-trees. Many of the trees yield odoriferous gums and resins, particularly benzoin of an excellent sort, in great plenty. The rivers are well stocked with fish, the coast with land and sea tortoises, and every part of the country with horned cattle, as well as hogs and goats. Ambergris, coral, and the most beautiful shells, are found upon the shore. The woods are full of turtle-doves, paroquets, pigeons, and a great variety of other birds, beautiful to the eye, and pleasant to the palate. The French first settled here in 1672; and, though they were dispossessed of the island by the English, in the last war, they regained it by the treaty of peace. Population, 100,000, most of whom are slaves.

7. The following islands lie on the western coast. The *Guinea Islands*. In the Gulf of Guinea are several islands, the largest of which are *St. Thomas*, *Prince's Island*, and *Fernando Po*. The first 2 belong to the Portuguese. On Fernando Po, the British have formed a settlement.

8. *St. Helena* stands entirely detached from any group, and about 1,200 miles from the nearest land, on the coast of Southern Africa; latitude $15^{\circ} 55' S.$; longitude $5^{\circ} 49' W.$ It is $10\frac{1}{2}$ miles long, by $6\frac{1}{4}$ broad, and about 28 miles in circumference. It presents to the sea, throughout its whole circuit, nothing but an immense wall of perpendicular rock, from 600 to 1,200 feet high, like a castle in the midst of the ocean. There are only 4 openings in the great wall of rock which surrounds St. Helena, by which it can be approached with any facility. These are all strongly fortified. The climate is moist, and liable to strong gusts of wind. The principal plain in the island, called *Longwood*, has become celebrated by the residence of Napoleon, who died here in 1821. His tomb is in a secluded recess, and is surrounded by a fence, inclosing a piece of ground containing weeping willows. St. Helena was granted to the English East India Company, by Charles the Second, and still remains in their possession. It is frequently resorted to as a place of refreshment, by vessels returning from India. *Ascension* is a small island, situated to the northwest of St. Helena, in latitude $8^{\circ} 8' S.$, longitude $14^{\circ} 28' W.$ It is entirely barren and destitute of water, but has an excellent harbor and abounds in fish, sea-fowl, and turtles. It is occupied by the British government as a military station. The island of *St. Matthew* lies north of Ascension, in latitude $1^{\circ} 24' S.$

9. The *Cape-Verde Islands*, further north, are so called from a cape of that name, near the river Gambia, over against which they lie, at the distance of 300 miles. They were first discovered in 1460, by the Portuguese, and are about 20 in number; but some of them, being only barren, uninhabited rocks, are unworthy of notice. Sant-Iago, Antonio, and Nicola, are the most considerable. One is a mere volcano, and is therefore called Fogo. The air is frequently very hot, and, in some of these islands, very unwholesome. They are inhabited by Europeans, or the descendants of Europeans, and negroes.

Sant-Iago is 140 miles in circuit, and is the most fruitful; yet it is mountainous, and much barren land in it. Its produce is sugar, cotton, some wine, Indian corn, cocoa-oranges, and other tropical fruits, plenty of roots, and garden vegetables; but the plant of consequence, is the madder, which grows in abundance among the cliffs. *Praya* is on the side of the island, has a good port, and is seldom without ships, those outward-bound to Guinea, or to the East Indies, often touching here for water and refreshments.

In the island of *Mayo*, belonging to this group, immense quantities of salt are made by the heat of the sun, from the sea-water, which, at spring-tides, is received into a sort of pan, formed by a sand-bank, that runs along the coast for several miles. Here the English and Americans carry on a considerable trade, for salt. The salt costs nothing, except for raking it together, wheeling it out of the pond, and carrying it on asses to the boats, which is done at a very cheap rate. Asses are also an article of trade at this island, whence they are conveyed to the West Indies. These islands are subject to great droughts; during which the thin, dry soil, yields no harvests, and the inhabitants suffer all the horrors of famine. They belong to Portugal.

10. The *Canaries*, anciently called the Fortunate Islands, are situated at the distance of 50 miles southwest of Morocco. Their particular names are, the Grand Canary, Teneriffe, Palma, Gomera, Hierro or Ferro, Fuerte-Ventura, and Lancerota. These islands enjoy a pure, temperate air, and abound in the most delicious fruit, especially grapes, from which a rich species of wine is made. The Canaries also produce those beautiful birds, which bear their name, and are now so common in Europe and America. They belong to Spain.

Teneriffe, the largest island of this group, is about 120 miles in circuit; a fruitful country, abounding in corn, wine, and oil, though it is encumbered with mountains. The highest point is called the Peak, or Pic. The ascent to this elevated spot, is not so very hazardous or difficult as it was long imagined to be. From Oratava a deep ravine commences; a chestnut forest then appears, covering the flanks of those mountains, which form a central chain across the island. A series of verdant hills follow; after which the track leads across a steep mass of lava rock, worn into ravines, and exhibiting a thin surface of yellow pumice. At length an undulated plain spreads itself, like a fan, to a great extent, until it terminates in the second region of the peak and a range of precipices. A steep mountain of pumice is next ascended, and varied masses of lava require to be passed, before the summit of this stage of the mountain is attained. The foot of the cone is then reached; and the subsequent ascent is rendered troublesome and fatiguing by the excessive steepness of the cone. The feet of adventurous visitors sink into the ashes at every step, and quantities of pumice and lava are rolled down upon them. Of the highest part, the superficial extent is about an acre and a half; and this is itself a small crater, in which sulphureous heat is observable. The height of the Pic is calculated at 13,000 feet. *Santa Cruz* is the capital of Teneriffe, and the seat of government for all the seven islands. Though not large, it is a well-built city, with 8,000 inhabitants. *Laguna* exceeds it in magnitude, but has a mean appearance. Out of 150,000 persons, who form the whole population of the Canaries, 60,000 may be assigned to Teneriffe.

Fuerte-Ventura is larger than the Grand Canary; but it scarcely contains 9,000 inhabitants, while the latter has about 45,000. One island is remarkable for drought; the other has a sufficient supply of moisture to produce such fertility, that there are two, and sometimes three, harvests of wheat and maize in one year; hence the Great Canary is called the granary of the insular group. *Palmas*, the chief town of the latter, has 10,000 inhabitants.

11. *Madeira* is about 60 miles long and 40 broad, and consists of one continued hill of a

considerable height, extending from east to west; the declivity of which, on the south side, is cultivated, and interspersed with vineyards. In the midst of this slope the merchants have fixed their country-seats, which form a very agreeable prospect. The chief town, named *Funchal*, stands on the southern side of the island; toward the sea, it is defended by a high wall with a battery, and it is the only place where it is possible for a boat to land; and even there the beach is covered with large stones, and violent surf continually beats upon it. Of the bay, on which the town borders, the extremities are formed by two steep promontories,



Funchal, Madeira.

composed of volcanic rocks. It may rather be called an inconvenient road than a good harbor. Though the city is the seat of the governor, the bishop, and the court of the inquisition, it is far from being elegant or handsome. It is irregularly built; the streets are narrow, crooked, and ill-paved, and are generally in a very dirty state. The churches and convents are numerous; but they are not remarkable for beauty or magnificence, though some, and more particularly the cathedral, are richly decorated. The population of the town is about 20,000; and of the whole island, 98,800. This island is held by the Portuguese, and produces wine and fruit in great abundance. It is less fruitful in corn, from the rocky nature of the soil. Sugar-canes used to thrive in it; but they are not at present much cultivated. The inhabitants make excellent sweetmeats, and have the art of preserving citrons and oranges, and making marmalade and perfumed pastes, which exceed those of Genoa. The little sugar they make is very fine, and has a fragrant odor. This, indeed, is said to be the first place in the west where that manufacture was set on foot; whence it was carried to Brazil.

The climate of Madeira is very hot for a great part of the year, but is so far from being insalubrious, that invalids resort to it from other countries; and, notwithstanding its heat, is remarkably free from venomous animals. It has a rainy season, which necessarily varies the temperature. Some years ago, a waterspout, as it was called, or a surcharged cloud, came over the island, and swelled the rivulets to such an excess, that dreadful inundations ensued. The country, and the environs of the city, were ravaged by the torrents; houses and villages were washed away, and many lives were lost.

The natives of Madeira are generally of a middle stature. In complexion they cannot be distinguished from Europeans.

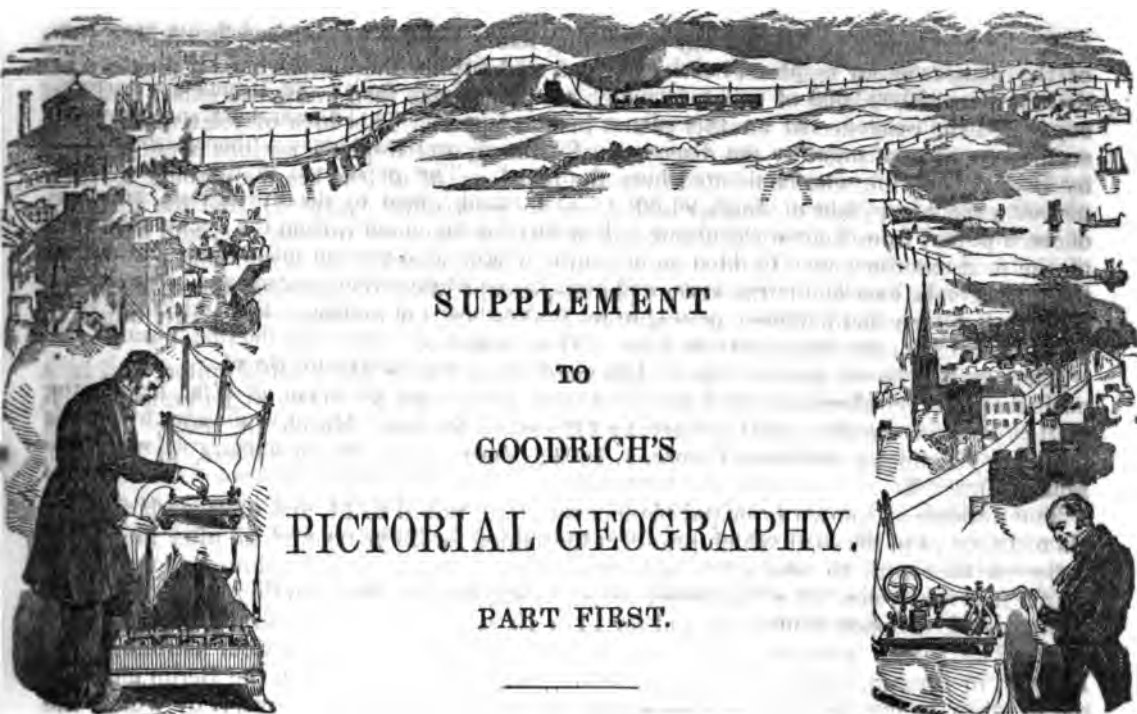
MISCELLANEOUS NOTES.

The *South Atlantic* contains few islands of any size, and no inlets of any consequence; but the *North Atlantic* abounds in large islands, and in deep and numerous inland seas, which penetrate far on each side into both the old and new worlds, and have fitted it for the most extensive commerce on the globe. On its eastern shores it receives few large rivers except the Niger; but on the west it receives the Plata, Orinoco, Amazon, Mississippi, and St. Lawrence, — the largest rivers on the face of the earth.

The usual color which sea-water exhibits is a bluish green, of various shades. Some maintain, that this is its true and proper color; others, that it is an optical illusion, occasioned by the greater refrangibility of the blue rays of light, — opinions which may both be true to a certain extent. The ocean seems often to assume various other colors; some of them no doubt real, but as often illusory. Among the more general sources of deception, may be reckoned the aspect of the sky; thus, an apparently dark-colored sea is a common prognostic of an approaching storm; not that the water then is really blacker than usual, but the dark color of the clouds indistinctly seen in or reflected from the waves, is mistaken for the color of the sea itself.

The variety of colors in the sea may probably arise from animal and vegetable matters diffused through the waters in a putrescent state, and communicating various tints. The yellow and bright green shades seem to be owing to living marine vegetables, which grow at the bottom, stretch their fibres through the water, or spread over the surface.

The phosphorescence of the sea is a common but very remarkable phenomenon, concerning the cause of which authors are not agreed. But most probably, as Newton conjectured, it proceeds from a variety of causes. It has been ascribed to luminous animals and to the phosphorescence of semiputrescent matter diffused through the ocean. It is well known, that various fishes and other marine animals, emit light, which does not in every instance appear to be voluntary, or to depend on the vital principle, as, in some of them, it continues, and perhaps increases, after death, but motion seems to be either a principal cause, or at least an exciting one; for this light more rarely occurs, and is much fainter, in still water, whilst it becomes more and more brilliant as the motion increases. It is also more abundant immediately before and during storms.



SUPPLEMENT
TO
GOODRICH'S
PICTORIAL GEOGRAPHY.
PART FIRST.

INTRODUCTION.

I. RECENT ASTRONOMICAL DISCOVERIES.

Planets. The science of Astronomy has not failed to partake of the general career of discovery and improvement, by which the present times are so distinguished. Prior to the year 1781, only six principal Planets were known, including the Earth, to which the ancients added the Sun and the Moon, making, exclusive of the earth, the seven planets, or wandering heavenly bodies, from which the seven days of the week were named in the following order, viz: Sun, Moon, Mercury, Mars, Jupiter, Venus, Saturn. The invention of the telescope led to the discovery of four more secondary planets, viz: the four satellites of Jupiter, first seen at Ansbach, in Germany, Dec. 29, 1609, by Simon Mayer, or as the name was Latinized, Marius, and nine days afterwards, Jan. 7, 1610, by Gallileo at Padua, who, as he announced the discovery two years before it was mentioned by Marius, has generally obtained the honor of having first made it.

No more discoveries of this sort were made till March 25, 1655, when Huygens discovered the great satellite of Saturn, named *Titan*, the sixth in order of distance from the planet. The same astronomer not long after, (Dec. 7, 1657,) discovered the form of the ring of Saturn, an appearance which had been observed, but not accurately comprehended by Gallileo, and others. The eighth and outermost satellite of Saturn, *Japetus*, was discovered in 1671; the fifth, *Rhea*, in 1672; and the third, *Tethyr*, and fourth, *Dion*, in 1684; all by Jean Dominique Cassini. No further planetary discoveries were made for near a century, the number of known planets standing at six primary, ten secondary, viz: one satellite belonging to the Earth, four to Jupiter, and five to Saturn.

May 13, 1781, Sir William Herschel discovered a new primary planet exterior to Saturn, and now known by his name, or more commonly called *Uranus*. In 1787, he discovered two satellites of that planet, the second and fourth in distance from it. In 1789, he discovered the two satellites of Saturn, *Minos*, and *Enceladus*, nearest to that planet. In 1790, he discovered the first and fifth, and in 1794, the sixth and the third satellites of Uranus.

Kepler had long ago pointed out something like a regular progression in the distances of the planets as far as Mars, between which and Jupiter there intervened a distance of no less than 350,000,000 of miles, in which no planet was then known to exist; and had suggested the existence of another planet in that space. This idea of relative distance seemed to be confirmed by the discovery of Uranus, and Kepler's notions were revived by Bode, of Berlin, who concluded from the relations of all the known planets to their nearest neighbors, (that of Jupiter and Mars to each other excepted), that the distance of each planet from the Sun is about double that of the next interior one, and half that of the next exterior one. Guided by this rule, which, roughly speaking, held good as to the mutual relations of all the known planets, except Mars and Jupiter, the space in the heavens between them, where agreeably to Bode's law, an undiscovered planet ought to exist, was rigorously examined; and not without success.

The small primary planet CERES, intermediate between Mars and Jupiter, and in a position pretty conformable to Bode's law was discovered by Piazzi at Palermo, Jan. 1, 1801; PALLAS, another small planet by Olbers, at Bremen, March 18, 1802; JUNO, a third, by Harding, at Silienthal, Sept. 1, 1804; VESTA, a fourth, by Olbers, at Bremen, March 29, 1805.

The number of known principal planets was thus raised to 11, and of secondary planets to 18, or 29 in all,—at which numbers they stood for 38 years, and till after the publication of the work to which this is a supplement. Olbers had continued a systematic search for eight years after the discovery of Vesta, but without finding any additional planets. He dropped it in 1816, and for 14 or 15 years the subject attracted little attention. The search was resumed about 1830, by M. Hencke, an amateur astronomer at Dreissin in Prussia, and after 15 years of diligent survey, assisted by the Berlin chart of the heavens, he commenced in 1845 a new career of planetary discovery, by which the number of principal planets has been more than doubled, and which does not appear to have yet come to an end.

Towards the close of that year, Dec. 8th, he discovered *ASTRAEA*, a fifth member of the group of small planets or asteroids situated between Mars and Jupiter, and of which only four had hitherto been known. Following up the search, a sixth of these small planets, named *HEBE*, was found by the same astronomer, July 1, 1847. Other observers had now engaged in the search, and Aug. 13th, of the same year *IRIS*, and Oct. 18th, *FLORA*, two new members of the group were discovered by Mr. Hind of London, having charge of a private observatory erected by Mr. Bishop, in the grounds of his private residence in Regent's Park. On the 25th of April, 1848, *METIS*, a ninth asteroid was discovered by Mr. Graham at the private observatory of Morkin Woth, in Ireland. Dr. Anabal de Gasparis, assistant astronomer at the royal observatory at Naples, discovered a tenth, April 12, 1849, called *HYGEIA*, and an eleventh called *PARTHENOPE*, on the 11th of May, 1850. On the 13th of September of the same year, Hind discovered a 12th called *VICTORIA*, and Nov. 2nd, Gasparis added a 13th, named *EGERIA*. On the 19th of May, 1851, Hind found a 14th called *IRENE*, which was also discovered four days later by Gasparis at Naples, who, on the 29th of July following, found a 15th called *EUNOMIA*, and on the 17th of March, 1852, a 16th called *PSYCHE*. Just a month later, on the 17th of April, a 17th called *THETIS* was discovered by Luther of Bilk, in Germany; on the 24th of June, an 18th called *MELPOMENE*, by Hind; on the 22d of August, a 19th by Hind, called *FORTUNA*; on the 9th of September, a 20th by Charconnac, of Marseilles, called *MASSILIA*; on the 16th of Nov. a 21st by Hind, called *CALLIOPE*; on the 25th of Nov., a 22d by Goldschmidt at Paris, called *LUTETIA*; and on Dec. 15th, a 23d, also by Hind, called *THALIA*. The discovery of a 24th, called *PHOCEA*, was made April 6, 1853, by Charconnac of Marseilles, and of a 25th, on the 5th of May, 1853, by Luther of Bilk.

These rapid discoveries of telescopic planets, are less to be ascribed to perfection of telescopes, though great improvements have been made in these instruments, than to the industry and dexterity of the observers, and especially to the improved charts of the heavens, enlarged by the addition of fixed stars of the ninth and tenth magnitudes, none of these planets shining with more light than stars of the eighth magnitude, and several of them being still fainter.

The distinctive characteristics of the planets of this group between Mars and Jupiter are, first, their small size,—so small that it is very difficult to measure it with any exactness ; though it is probable that the largest of them does not much exceed 600 miles in diameter, being thus more than 10 times less in diameter, 100 times less in surface, and 1000 times less in size, than the earth ; second, their interlacing orbits, and the inclination of these orbits to the plane of the ecliptic, which rises from 3 deg. 47 min., in the case of Hygeia, to 13 deg. 3 min., in that of Juno, 14 deg. 47 min. in that of Hebe, 16 deg. 33 min. in that of Egeria, and even to 34 deg. 37 min. in that of Pallas. So intimate, indeed, is the connection of this whole group of small planets, that if the orbits are supposed to be represented as hoops, they all hang together in such a manner that the whole group may be replaced by any given one, that of Iris being the intermediate bond which unites together what, if that were unknown, would appear to consist of two separate groups—a result the more unexpected considering the wideness of the zone which these orbits occupy in the solar system. This singular connection of these planets has served to give weight to the suggestion that they are but fragments of what originally was but one planet, but which, by some extraordinary catastrophe, was broken up into a multitude of parts—an idea first suggested by Olbers, while as yet only Ceres and Pallas were known as a means of accounting for their interlacing orbits, and which led him to conjecture that the discovery of other similar fragments might be expected.

It is not alone to this remarkable group of small planets, that the triumphs of modern theory and observation have been limited. The observed motions of Uranus being found to differ from the orbit ascribed to it by theory, the idea was suggested that this disturbance must be caused by the attraction of some planet, as yet unknown, exterior to it. Two astronomers, Mr. Adams, of St. John's College, Cambridge, and M. Le Verrier, an eminent French mathematician, set themselves simultaneously, though unknown to each other, to calculate from the known perturbation of Uranus, and from the assumption that Bode's law of relative distances would extend to the undiscovered planet to which those perturbations were ascribed, the place in the heavens where that planet would be likely to be found. In consequence of suggestions founded on the calculations of Le Verrier, search was made by Dr. Galle of the Royal Observatory of Berlin, on the 23d of September, 1846, and in the spot indicated a new planet was found, having the brightness of a star of the eighth magnitude. But this planet, called NEPTUNE, thus wonderfully discovered, has not proved to be at that distance from the sun which Le Verrier had assumed, the distance falling short of that which the law of Bode would have required, by more than a fourth ; nor, consequently to be of the size, nor to have the period of rotation, ascribed to it by the theoretical calculation which led to its discovery. A satellite was discovered attending on this new planet, shortly after the discovery of the planet itself, viz. in October, 1846. Mr. Lassall of Starfield, near Liverpool, has since caught glimpses, as he supposes, of another. An additional satellite of Saturn, *Hyperion*, the seventh and outermost but one in distance from the planet, was discovered in September, 1848, by Mr. Bond of the observatory at Cambridge in the United States, and by Mr. Lassall of Liverpool two or three days later. Mr. Bond has also noted, as well as other astronomers, additional divisions of the ring of Saturn ; and he has shown, by an elaborate calculation, that this ring must be composed of a fluid and not of a solid mass. Up to the middle of the year 1853, the number of known primary planets amounted to thirty-four, including the earth and the sun, and of secondary planets to twenty,—including, however, two satellites of Herschel, never seen except by that astronomer, and the second satellite of Neptune, the existence of which can hardly be considered as quite certain. This whole number of fifty-four planets, or fifty, excluding those as to the existence of which any doubt may exist, is nearly seven times greater than the number known to the ancients, and indeed the number of known planets has been increased by about two-fifths within the last eight years. The astronomers have applied themselves with great diligence to the calculation of the elements of these new planets ; but of course, our knowledge on this subject is as yet defective. The extreme smallness of the new planets between Mars and Jupiter makes it very difficult to ascertain their diameters. The information thus far obtained is embodied in the following Table.

Principal Elements of the New Planets, as far as ascertained.

N.B. The place of Vesta is between Victoria and Iris; that of Juno, Ceres, and Pallas, between Irene and Hygeia.

Names.	Periods of Revolution, days.	Mean Distances, in miles.	Diameter, miles.	Discoverers.
Flora	1,193	209,326,000	?	Hind, Oct. 18th, 1847.
Victoria	1,303	222,373,000	?	Hind, Sept. 13th, 1850.
Iris	1,346	227,334,000	?	Hind, Aug. 13th 1847.
Metis	1,347	227,337,000	?	Graham, April 25th, 1848.
Hebe	1,379	231,089,000	?	Hencke, July 1st, 1847.
Parthenope	1,399	233,611,000	?	Gasparis, May 11th, 1850.
Egeria	1,505	244,940,000	?	Gasparis, Nov. 2d, 1850.
Astræa	1,511	245,622,000	?	Hencke, Dec. 8th, 1846.
Irene	1,518	246,070,000	?	Hind, May 19th; Gasparis, May 23d, 1861.
Eunomia	1,574	252,300,000	?	Gasparis, July 29th, 1851.
Calliope	1,842	378,060,000	?	Hind, Nov. 16th, 1852.
Hygeia	2,043	500,322,000	?	Gasparis, April 12th, 1849.
Neptune	60,126; or more than 164½ yrs.	72,862,457,000	31,000	Le Verrier and Galle, Sept. 23d, 1846.

Principal Elements of the Secondary Planets, so far as yet ascertained.

Names.	Periods of Revol. days. h. m. sec.	Distance from Primary, in semi-diameters thereof.	Mean Distance from Primary, in miles.	Diameter, in miles.	Discoverers.
Moon	27. 7.43.11.5	60,000	238,000	2,160	
Jupiter's 1st	1.13.23.30.5	6,049	278,500	2,460	Galileo, Jan. 7, 1610; and
" 2d	3.13.14.36.4	9,623	443,300	2,190	Mayer, Dec. 29, 1609.
" 3d	7. 3.42.33.4	15,850	707,000	3,580	Do.
" 4th	16.16.31.49.7	26,398	1,243,500	3,060	Do.
Saturn's 1st (Mimos)	30.22.37.32.9	3,860	113,000		Herschel, 1789.
" 2d (Enceladus)	1. 3.58. 6.7	4,312	152,000		Do.
" 3d (Tethys)	1.21.18.25.7	5,339	183,000		Cassini, 1634.
" 4th (Dion)	2.17.41. 8.9	6,839	240,000		Do.
" 5th (Rhea)	4.12.25.10.3	9,552	336,000		Do. 1672.
" 6th (Titan)	15.22.41.24.3	22,145	778,000		Huygens, 1655.
" 7 (Hyperion)	21. 4.20.	28,000?	940,000?		Bond & Lassell, Sept. 19, 1858
" 8th (Iapetus)	79. 7.54.40.8	64,350	2,268,000		Cassini, 1671.
Herschel's, 1st	5.21.25.20.3	13,120?	466,000		Herschel, 1798.
" 2d	8.16.56.28.3	19,845?			Do. 1787.
" 3d	10.23. 2.47.2	45,507?	700,000?		Do. 1794.
" 4th	13.11. 6.55.2	91,008?			Do. 1787.
" 5th	33.11.48.		1,590,000?		Do. 1790.
" 6th	107.16.39.56.?		3,185,000?		Do. 1798.
Neptune's 1st	5.21.	7,400	232,000		Lassell, 1846.

2. *Comets.*—Since the discovery of Encke's comet, in 1819, these bodies have attracted much attention. Six are now known, including Encke's, whose orbits are confined within those of the planets, with periods of from 3.3 to 7.4 years, and two others whose periods of revolution are shorter than that of Neptune. Up to the year 1847, 178 had been calculated; of which that of Encke has the shortest period, completing its revolution in 3.3 years, while that of the comet of 1680, the longest, extends to 88.4 years, its aphelion, or greatest distance from the sun, reaching to 853 times the distance from the sun to the earth, with a motion of only ten feet to the second, while its perihelion, or nearest approach to the sun, in 1680, was only 128,000 geographical miles from that luminary, or nearer to it than the earth to the moon. Not less than six or seven hundred comets have been observed, and the search for them still continues to be carried on with much vigor. The Chinese have a list of all comets seen in that country since B. C. 613. Most comets are, however, telescopic; of which, upon an average, two or three are discovered annually. In the three centuries and a half from 1500 to 1850, *fifty-two* have appeared visible to the naked eye.

8. *Fixed Stars.* — The astronomers of the present day, not confining themselves to the observations of those bodies which form our solar system, have done much towards penetrating into the infinite depths of space beyond. In addition to the seven moving heavenly bodies, called planets, visible to the naked eye, there present themselves to the observation of the same naked eye, numerous other stars which always preserve apparently the same relative position to each other, with no other motion, so far as the naked eye can detect, except those of apparent ones, of which they all partake in common, caused by the motion of the earth on its axis, and in its orbit, and by the changing direction of its poles. In distinction from the planets, these latter were called *fixed stars*, not so much it would seem originally from any idea of their immobility, as from the notion that they were fixed or infixed in a crystalline sphere, the outermost portion of the visible heavens, by the motion of which they were daily carried round the earth, the planets being carried in like manner by interior spheres of their own. At a very early period these stars were separated into groups, called constellations, among which the whole visible heavens were mapped out, the divisions of these constellations being founded on certain fanciful resemblances, and their names derived partly from certain animals and partly from the personages of the heathen mythology.

More accurate knowledge as to the position of the fixed stars and their changes was introduced by catalogues of them in which their places were determined by their distance from the great circles of the heavens. The earliest of these catalogues appeared to have been made at Alexandria in Egypt, by the Greek astronomers Timochasis and Aryllstillus, about 2150 years ago. But the oldest catalogue which has come down to us, is that of Hipparchus, as preserved by Ptolemy, made 2000 years ago, and which till within about 200 years, embraced with some few additions made to it by subsequent observers, the bulk of human knowledge as to the fixed stars. This catalogue in the form in which we possess it, contains 1025 stars. The exactness of knowledge on this subject was greatly increased by the industry of that excellent and laborious observer, Tycho Brahe, to whose labors, previous to the invention of the telescope, so much was due. But although the position of several brilliant southern stars unknown to Hipparchus, Ptolemy, and even to the Arabian astronomers, and first discovered by the circumnavigators of Africa and America, were given by him; his catalogue as revised and published by Kepler, contained no more than 1000 stars, less than one fifth of the number actually visible to the naked eye, which may be reckoned at from 5,000 to 5,800, allowance being made for variations in sharpness of vision. These stars visible to the naked eye, were classified by the old astronomers, and still are, into six magnitudes. Of the whole number about 20 are reckoned as of the first magnitude, 35 of the second magnitude, 190 of the third magnitude, 425 of the fourth magnitude, 1100 of the fifth magnitude, and 3200, or more than three fifths of the whole number, of the sixth magnitude. It must be recollected, however, that only one-half the heavens can ever be seen at the same moment, and that to stationary spectators, it is only on the Equator that the whole of the heavens ever become visible, a certain intervening region round one or the other pole, sinking permanently below the horizon as the spectator advances into higher latitudes.

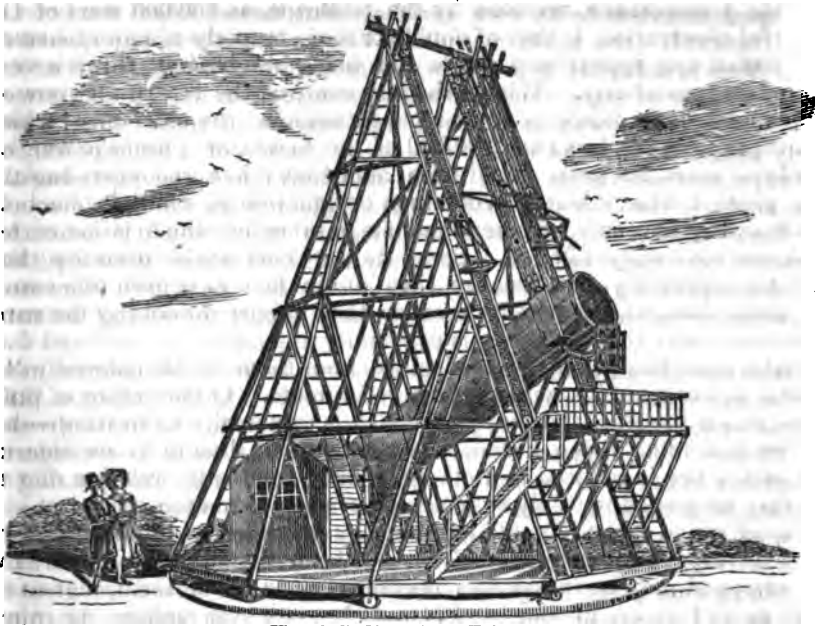
In our temperate zone, not more than 2000 stars are ever visible at the same moment to the sweep of the naked eye. The common idea of the visible stars being innumerable, has arisen in no small measure from their scintillation and their irregular diffusion, which is pretty equal over the whole heavens, though on the whole, the northern hemisphere preponderates as well in brilliancy as in number. The discovery of the telescope revealed, as its powers were increased, an increasing number of fixed stars, estimated at 13,000, of the seventh magnitude, 40,000 of the eighth magnitude, and 142,000 of the ninth magnitude — or in the whole up to this limit about 200,000, being one star for each space of the heavens of the apparent size of the moon; of which number upwards of 50,000 have been observed and noted, and their places recorded in charts and catalogues. This result will explain why in any given latitude the moon does not more frequently conceal stars visible to the naked eye. If the calculations of the occultations of stars were extended to those of the ninth magnitude, a stellar eclipse would occur on an average every $44\frac{1}{2}$ minutes, that being the time which the moon takes to traverse a por-

tion of the heavens equal in extent to its own surface. But these 200,000 stars of the ninth magnitude and upwards, (the ninth magnitude being about the apparent size of the asteroids between Mars and Jupiter in telescopes of moderate power,) are but a very small part of the total number of stars which the telescope reveals to us. Under powerful instruments, the whole milky way is resolved into masses of small stars, which though not separately perceptible by the naked eye, or by glasses of inferior power, do yet, by their united rays, become visible as a bright nebulous circle, encompassing the whole heavens at an angle to the Equator of 63 deg. This remarkable nebulous belt, which the telescope shows to be composed of stars, the number of which is estimated by Sir William Herschel, who spent years in their study and observation, at no less than 18,000,000, does not form quite a great circle, since it divides the sphere into two somewhat unequal parts, whose areas are nearly as 8 to 9, the smaller part containing the summer solstice.

The milky way varies considerably in breadth in different parts of its course; in its narrowest, and at the same time, most brilliant portion, nearest to the antarctic pole, its width is nearly three or four degrees. In other parts it is 16 deg., and in its divided portion as much as 22 deg. The milky way may be considered as being to the sidereal world, what the ecliptic is to our solar system of planets and comets, a plane or ring to which all the fixed stars, both those in it, and those out of it may be referred.

In the field of view of powerful telescopes, the milky way appears as diversified in its sidereal contents as it is irregular and indefinite in its outline and limit when seen by the unassisted eye. While in some parts, it exhibits, throughout a great space, the greatest uniformity in the light and apparent magnitudes of the stars, in others the most brilliant patches of closely clouded luminous points are interrupted by granular or reticular darker intervals, containing but few stars; and in some of these intervals in the interior of the milky way, not the smallest star (of the 18th or 20th magnitude) is to be discovered, the field presenting a perfectly black appearance. In examining the milky way with a field of view of 15 deg. (nearly twice the apparent diameter of the moon,) fields presenting on an average 40 or 50 stars, are almost instantly succeeded by others with from 400 to 500. Stars of the higher magnitudes often occur in the midst of the most minute telescopic stars, while all the intermediate classes are absent. But perhaps those stars which we regard as belonging to the lowest orders of magnitudes, do not always appear as such, solely on account of their enormous distance, but also because they actually have a smaller volume or less development of light. The space-penetrating power of instruments — and according to the calculations of Sir William Herschel, a 20 feet instrument penetrates to a distance which would take light, which moves at the rate of 193,000 miles a second, 12,000 years to traverse; while a 40 feet telescope penetrates more than three times as far — is sufficient to resolve, in many parts of the milky way, the whole star-cloud, and to show the separate luminous points projected on the dark starless ground of the heavens. It leads us, says Sir William Herschel, “irresistibly to the conclusion, that in these regions we see fairly through the starry stratum, a stratum when the sheet is composed of stars nearly of the same size, of no great thickness, compared with the distance which separates them from us.” In other portions of the heavens, the existence of a starry stratum, shining at a remote distance behind all the stars visible, even with the largest instruments, is announced by a uniform dotting or stippling of the field of vision.

It follows from the examinations of the two Herschels in the northern and southern hemispheres, that as we depart from the milky way in either direction towards what may be called its poles, the number of stars rapidly diminishes. If indeed we limit our investigations to the bright stars, those of the first three or four classes of magnitudes, and those therefore which particularly attracted the attention of the earliest observers, we shall find them distributed on the whole with tolerable uniformity, although in the southern hemisphere, from Orion to the Southern Cross, they are locally crowded together in a splendid zone in the direction of a great circle. But with the stars of the fifth and sixth to the tenth and fifteenth magnitudes (particularly therefore telescopic stars,) it is very different. They are at a maximum of density in the milky way, which density decreas-



Herschel's Forty Feet Telescope.

es in all directions as we depart from it, at first slowly and then with rapidity, till at the poles of the milky way, it reaches its minimum.

It has been calculated, that on the average, there are nearly thirty times as many stars in the centre of the milky way, as in the regions surrounding its poles. In northern galactic polar distances of 0 deg., 30 deg., 60 deg., 75 deg. and 90 deg., the

relative number of stars in a telescopic field of vision of 15 min. diameter are 4, $6\frac{1}{2}$, $17\frac{1}{2}$, 30 and 122.

To the naked eye the stars are distinguishable as to color at most as white, yellow and red, and these not very distinctly marked. The telescope not only brings out these colors, showing some stars white as silver, others yellow as gold, and others red as drops of blood; but it shows also blue, green and violet stars, — stars in fact of all the colors of the solar spectrum, and various intermediate shades. Occasionally more than a 100 various colored, red, green, blue and bluish green stars are so closely thronged together, that they appear in a powerful telescope, to borrow the description of Sir John Herschel, "like a superb piece of fancy jewelry." Nor are these colors always constant. Sirius, the dog star, one of the brightest in the heavens, is uniformly described by the old astronomers as a fiery red star. It now shines with a perfectly white light. But unfortunately we are not able to trace the steps by which this change took place, nor do we know the time at which it became marked. Many other stars are found by modern observers to vary not only in color, but in brilliancy also. This however, is a less remarkable circumstance than the appearance and disappearance of new new stars, a phenomenon of which we have more or less certain instances from the time of Hipparchus downward, but which became specially conspicuous in the century from 1572 to 1670; no less than eight of these stars having made their appearance in this period.

In the 180 years since, only one of these remarkable stars has been observed, although in this long interval, the heavens have been most carefully observed, and its stars, down to the ninth magnitude, counted and catalogued. On the 28th of April, 1843, at Mr. Bishop's private observatory in the Regent's Park, London, Mr. Hind, the discoverer of so many of the lesser planets, made the important discovery of a new reddish yellow star of the fifth magnitude in the constellation Ophiuchus; nor has the actual newness of the star, and the invariability of its position, (which proves it to belong to the region of the fixed stars,) been demonstrated in any other case with greater precision. In 1850 it had dwindled to the eleventh magnitude, and has since disappeared. Such has been the case with other stars of this class, though some of them have shone at their first appearance with a brilliancy equal to that of Jupiter and Venus, and have remained visible, though with diminished brightness, for much longer periods, while others vanishing for a time, have again once or twice reappeared, and have finally, though with diminished magnitude, continued to maintain their place in the heavens.

Another remarkable phenomenon revealed by the telescope, and which has been of late a subject of careful observation, is that of double or more properly of multiple stars; many, which to the naked eye, appear as a single star, being resolved by the telescope into two or more, in close proximity. Within the last century, the search for stars of this character has been diligently prosecuted; a single astronomer, the elder Struve, having examined for this purpose, not less than 120,000 of the fixed stars; and the number known of these multiple stars has been raised from about 20, a hundred years back, to about 6000 at the present time. But this common designation of multiple stars includes, it is to be observed, two sets of compound stars, in which the relation of the components to each other is totally different. Some stars are only double optically; that is, they are seen in close proximity, not because they are in fact near each other compared with their distance from us, but merely because they happen to occupy the same line of vision, in the same way that the moon is constantly appearing to touch and does actually eclipse certain fixed stars, though her distance from them is not materially less than that of the earth, or her relations with them more intimate. Others again of these multiple stars — and this is the class the study of which is principally interesting — are seen occupying the same field of vision, because, as compared to their distance from us, their distance from each other is reduced to nothing. That such is the relation of two stars to each other may be proved not only by a change of place as to each other, but also (as has been ascertained as to a considerable number), by a perfectly uniform motion through space of which they both partake. For it has been abundantly proved as to many of the fixed stars, and may be rationally conjectured as to all of them, that so far from being actually *fixed*, they are moving, and it must be with vast rapidity, as otherwise at their immense distance from us, that motion could not be perceived except in the lapse of a vast period. But this is a subject of which we shall speak more at length in a subsequent paragraph.

Of the 6000 known stars which are seen multiple, 650 are already known as to which a mutual change of position can be incontestibly proved, and in the case of from 14 to 16, the orbit of their revolution round a common centre of gravity has been established with periods of rotation of from 30 to 632 years. One of these, the star in the constellation Hercules, designated by the letter α of the Greek Alphabet, and which has the short period of 30 years, has twice completed its orbit since the epoch of its first discovery as a double star, and during this period has twice (1802 and 1831) presented the phenomenon of the apparent occultation of one fixed star by another. In the case of the triple star in the constellation Libra, designated by the Greek α , as well as in that in the constellation of the Crab, designated by the Greek α , the periodical movement of the two companions has been ascertained with great certainty. The latter system consists of three stars of the third magnitude, differing very little in brightness, and the nearer companion appears to have a motion ten times more rapid than the remoter one. In the case of the star in Orion, designated by the Greek θ , we have a combination of six, in which the five smaller stars, though no change has as yet been observed in their relative position, yet follow the proper motion of the principal star.

The discovery of the proper motion of the fixed stars was first rendered practicable when it became possible to compare with one another results separated by a long series of years, and when the telescope was combined with graduated instruments; thus by degrees advancing observations of the place of the heavenly bodies, from the accuracy of within a minute of an arc, (to which Tycho Brahe after infinite pains had first of all observers succeeded in obtaining by the naked eye) to the accuracy of a second or the part of a second. Halley, from a comparison of the positions of three very noted stars, Sirius, Arcturus, and Aldebaran, as determined by Ptolemy in his revision of the catalogue of Hipparchus, 1844 years before, with his own observations of them in 1717, considered himself justified in announcing the fact of a proper motion in those three stars. The comparisons begun by Halley were continued by Mayer (1756) and Maskelyne (1770), and the proper motion of the fixed stars was in some degree regarded as a general fact even in the middle of the last century. But for the more precise and numerical determination of this class of phenomena, we are indebted to the great work of Sir William Herschel, in 1783, founded upon the observations of Flamsteed, and still more Bessel's

and Argelander's successful comparison of Bradley's "Positions of the Stars for 1755," with recent catalogues.

The discovery of the proper motion of the fixed stars has proved of so much the greater importance to physical astronomy, as it has led to a knowledge of the motion of our own solar system through the starry realms of space, and indeed to an accurate knowledge of the direction of this motion. We should never have become acquainted with this fact, if the proper progressive motion of the fixed stars were so small as to elude all our measurements. The zealous attempts to investigate this motion, both in its quantity and in its direction, and to determine the parallax of the fixed stars, and thereby their distances, of which we shall presently speak, by leading to the improvement and perfection of arc graduation and of optical instruments in connection with micrometric appliances, have contributed more than anything else, especially by the ingenious employment of great meridian circles, refracting telescopes and heliometers, to raise the science of observation to the remarkable height of accuracy to which it has attained, especially since the year 1830.

The quantity of the measured proper motions of the fixed stars, varies from the 20th part of a second, to almost eight seconds. The more luminous stars have, in general, a slower motion than those from the fifth to the sixth and seventh magnitudes; yet some bright stars have revealed an unusually great motion, among which are Arcturus, of the first magnitude, and a bright star of the constellation Centaur, also of the first magnitude. The accumulation of their proper annual motion during 2,000 years, has amounted respectively to two and a half and three and a half diameters of the moon. Three others of these swift-moving stars, one in Cassiopeia, of the sixth magnitude, a double-star in constellation Eridanus, of between the fifth and sixth magnitude, and another double-star in the constellation of the Swan, of about the same apparent size, have a proper motion sufficient to reach, by accumulation through 2,000 years, in the first and second cases to three and a half, and in the third, to six diameters of the moon; while this same proper motion, in the case of three other stars, of from the sixth to the seventh magnitude, would reach, for the same period, to from seven and a half to eight and a half moon's diameters. These, however, are extraordinary cases. The arithmetical mean of the several proper motions of the fixed stars, would scarcely exceed one twenty-second of that of Arcturus. Since these proper motions are from one-twentieth of a second to seven seconds and seven-tenths, and consequently differ, in the least, in the ratio of 1 : 154, the relative distances of the fixed stars from each other, and the configuration of the constellations themselves, cannot, in long periods, remain the same. The southern cross will not always shine in the heavens, exactly in its present form; for the four stars of which it consists, move, with unequal velocity, in different paths. How many thousand years will elapse before its total dissolution, cannot be calculated. In the relations of space and the duration of time, no absolute sense can be attached to the terms *great* and *small*.

In all calculations as to the proper motions of the stars, as deduced from observation, allowance is first to be made for the aberration of light, a phenomenon first discovered by Bradley, in 1727. We must then allow for the apparent motion of the stars, produced by the nutation of the earth's axis, (also discovered by Bradley;) a consequence of the attractive force of the sun operating upon the protuberance about the earth's equator and causing a vibratory motion in the earth, by means of which the earth's poles, instead of being always directed to the same points in the heavens, describe there, in a little less than 19 years, a small ellipse, of which the greater is to the lesser axis, as 37 : 27, the length of the greater axis, in arc of a great circle, being 18.6 sec. To the effect of the sun's attraction (to which that of the planet Venus is also to be added), operating upon this same protuberance, is to be ascribed a much more important apparent change in the observed places of the fixed stars, discovered as much as 2,000 years ago, by the celebrated Hipparchus, though the cause was first explained by Newton. By comparing his own observations of the longitudes of the fixed stars, that is, their distances measured on the ecliptic, and following the course of the sun from the vernal equinox (still called the first point of Aries, though it has long since ceased to fall within that constellation), with the longitudes of the same stars, determined by Timochasis and Aristillus 150 years before, Hipparchus found that his own observations differed constantly in one direction, with an increase of distances, at the rate of about one degree in a century. Justly referring this relative change of position not to

the motions of the stars, but to a change in the position of the points of intersection of the ecliptic and the celestial equator; and because in reference to the circle of the earth's diurnal movement the equinoctial points were carried forward, Hipparchus named this phenomenon the *Precession* of the *Equinoxes*; though, as the equinoctial points retrograde on the ecliptic, thereby causing an increase in the distance of all the stars from the first point of Aries, measured upon that circle, it might with at least equal propriety have been called the *Retrocession* of the *Equinoxes*. We may conceive of this phenomenon as producing, or as represented by, the slow revolution of the pole of the celestial equator round the pole of the ecliptic, a revolution proceeding, at present, at the rate of about $50\frac{1}{2}$ sec. annually, and which it takes 25,800 years to accomplish. It is a consequence of this motion that, to spectators on a given point of the earth's surface, the fixed stars alternately advance and recede, to such an extent that the Southern Cross, which now only becomes visible in the northern hemisphere within 30 deg. of the equator, might, 5,000 ago, have been plainly seen in the latitude of London and Berlin.

Correction made for aberration of light, nutation, and precession of the equinoxes, what remains of the observed motion of the fixed stars requires still another correction for the effect of their *parallax*; that is, the change in the angle under which they are seen from different extremities of a diameter of the earth's orbit; which parallax, could it be accurately ascertained, would give us the distances of the fixed stars, the rate and direction of the motion in space of our solar system, and the true proper motion of the fixed stars themselves,—three great, complicated, and difficult problems, so closely connected with each other, that their already partially-successful solution depends upon the same means, every improvement in the instruments and methods of observation and calculation which are employed for the furtherance of any one of them, being useful also in both the others. So long as accuracy of observation did not exceed the minute of an arc, (the highest point attained previous to the employment of telescopic means,) no perceptible changes from parallax could be observed in the position of the fixed stars, from which it was concluded that the distance from us of the nearest of them must exceed 3,438 times the distance of the earth from the sun. This limit rose to 206,265 distances of the earth from the sun, when certainty to a second of an arc was attained in the observations of the great astronomer James Bradley. But it was only in the brilliant period of Fraunhofer's instruments, by which the direct measurement of an arc of the heavens might be accurately made to within about the tenth of a second, that the means began to be possessed of ascertaining the parallax of any of the fixed stars. In consequence of the widely diffused opinion that the superior brilliancy of a star must invariably indicate a greater proximity, stars of the first magnitude were, for a long time, selected for observation, with but little success. An accurate and satisfactory knowledge of the parallaxes of a few fixed stars, only dates from between the years 1832 and 1838.

Although Peters, in his valuable work of the distances of the fixed stars (1846), estimates the number of parallaxes hitherto discovered at thirty-three, there are only nine which merit a special, though very different degrees of confidence.

The parallax of the star Alpha, in the constellation of the Centaur, the finest double-star of the northern hemisphere, and the third in brightness of all the stars, has been calculated at 0.9128 sec. by the observations of Henderson, at the Cape of Good Hope, in 1832, and by those of McClear, in 1839, a result which would give a distance from us of 225,735 semi-diameters of the earth's orbit, a space which it would take light about three years to traverse. Still more reliable is the determination of the parallax of the star β of the Swan, the distance of which is found to be about three times as great as that of the preceding. The parallax of the polar star has been fixed, by Peters, from a comparison of many observations, made between 1816 and 1838, at 0.106 sec.; which would give a distance between three and four times as great as that of the above-mentioned star in the Swan. On the other hand, the observed parallax of Sirius and of the star Alpha in the constellation Lyra, would show a distance half as great as that of the Pole star. Sir William Herschel found, from the mean of eleven measurements conducted with a prismatic apparatus, that the full moon was 27,408 times brighter than the star Alpha of the Centaur. According to Wollaston, the light of the sun is 801,072 times that of the full moon. It seems, therefore, very probable, when we take into account the distance

of the star in the Centaur as determined by its parallax, that its real luminosity is two and three-tenths greater than that of our sun. Wollaston found the brightness of Sirius, the brightest of all the fixed stars, and, according to Sir William Herschel, equal in light to about 200 stars of the sixth magnitude, to be 20,000 million times less than that of the sun, which, however, would still give to Sirius, if we are correct as to its distance from us, an absolute intensity of light sixty-three times greater than that of the sun.

It does not appear, from the results hitherto obtained, that the brightest stars are nearest to us. The nearest of all, as far as yet known, the star in the Swan, is only of the sixth magnitude, and of course but barely visible to the naked eye.

After carefully allowing for all that is due to the precession of the equinoxes, the nutation of the earth's axis, the aberration of light, and the changes of parallax caused by the earth's revolution round the sun, the remaining annual motion of the fixed stars comprises at once that which is the consequence of the movement of the whole solar system through space, and that also which is the result of the actual proper motion of the fixed stars. Bradley, in his treatise on Nutation in the year 1748, first suggested the idea of a movement of the solar system through space, and the most desirable methods of observing it. Subsequently, the mere possibility and the greater or less probability of such a movement, were referred to in the writings of Tobias Meyer, Lambert, and Lalande; but Sir William Herschel had the great merit of being the first to verify the conjecture by actual observations. He found, in 1783, 1805, and 1806, what has since been confirmed and more precisely determined by many later and more accurate inquiries, that our solar system moves towards a point near to the constellation of Hercules, in about Right ascension (distance on the equator from the first point of Aries) 260 deg., and between 30 deg. and 34 deg. of north declination (distance north of the celestial equator).

4. *Nebulae*.—In connection with the general subject of the fixed stars, their distance, and the relations of our own solar system to them, great attention has been recently given to a class of bodies known as Nebulae, or stellar clusters, scattered through the heavens in various directions, and which may be well enough described as milky-ways on a small scale,—a smallness, however, not so much perhaps owing to any actual comparative smallness of size as to greater comparative distance from us. Of these bodies, Ptolemy's catalogue of the stars mentions six only; and though others were discovered and noted, in the course of the intervening ages, especially the celebrated Magellanic Clouds near the southern pole, yet down to the time of Sir William Herschel, the number known was very limited. Including those noted in the catalogues which he published in 1786, 1789, and 1802, revised with additions by Sir John Herschel, the number was raised, in 1833, to 2,307. To these have since been added, by Sir John Herschel's explorations at the Cape of Good Hope, and those of other observers in the southern hemisphere, about 1700 more.

A small part of these nebulae, appearing to the naked eye or to glasses of small power, like little fragments of the milky-way, are completely resolvable, like parts of the milky-way itself, into distinct, separate stars, and the resolution of some remarkable nebulae which hitherto had resisted all telescopes (especially one in the constellation Andromeda, resolved by George Bond of the Observatory of Cambridge, Mass., into more than 1500 distinct stars), has led, of late, to the opinion that all nebulae are of this character, and not masses of unconsolidated vapor (like the trails of comets), the elements of systems of worlds not yet consolidated and organized, as had been previously conjectured.

The prevailing idea at present is that these nebulae, appearing even to powerful telescopes only like shining spots in the heavens, constitute each its starry world, like that of the milky-way to which our own solar system belongs. No idea is more calculated to force upon the mind the conception of the boundlessness of the universe, since, according to an ingenious calculation of Sir John Herschel, the light of these distant bodies, faintly visible to our most powerful telescopes, must have required not less than 2,000 years to reach our earth.

From the number of observatories now established in various parts of the world, the perfection of instruments, and the zeal and care with which observations are made and recorded, it may be reasonably expected that, in the process of years, some very considerable additions will be made to our present knowledge of the vast realms of space, with

which, except through the medium of light, and by the aid given to the sense of sight by the telescope, we have no means of communicating.

II. ASTRONOMICAL CAUSE OF THE SEASONS, AND OF VARIATIONS IN THE LENGTH OF THE APPARENT DAY.

Astronomers, in speaking of the motions of the heavenly bodies, have unfortunately adhered to the unscientific language derived from the *apparent* motions of those bodies, which are altogether different from their real motions. Thus they speak of the zodiac as the path of the sun; they speak of the sun as crossing the equator, at the spring and autumnal equinoxes; approaching the tropic of Cancer, at the summer solstice; and the tropic of Capricorn, at the winter solstice. This method of speaking is very apt to confuse the minds of those not familiar with the subject, and to prevent them from forming clear and distinct ideas as to the actual causes of variations in the seasons and in the length of the days.

It must always be borne in mind that the sun is stationary, or so nearly so that the centre of the orbit in which it revolves is, at all times, included within its own circumference. The actual motion is on the part of the earth, which, in the course of the year, describes a complete revolution about the sun. The zodiac, therefore, is in fact not the path of the sun, but the path of the earth; and when astronomers speak of the sun being in a certain sign, the real fact is, that the earth is in the opposite sign. If the sun *seems* to move through the signs of the zodiac in a certain direction, it is because the earth is actually moving through those signs in the opposite direction.

Observe, also, that though the twelve signs, or portions of 30 degrees, into which the zodiac is divided, were named originally after certain constellations, with which, at that time, they corresponded, this correspondency does not now exist. There is a slight irregularity in the motion of the earth in its orbit, occasioned by the irregular figure of the earth, flattened at the poles and bulging out at the equator, which has given rise to what astronomers call the *precession of the equinoxes*, in consequence of which, the two equinoxes and solstices do not occur at the same points of the earth's course round the sun as formerly, but have, by very slow degrees, been moved considerably forward. The point where the vernal equinox occurs is, however, always considered the commencement of the first degree of Aries; and all the other signs are reckoned in order from that point, including thirty degrees each, without any regard to the actual position of the constellations whose names they bear.

In order to form a clear idea of the actual causes of the variations in the length of the days and the consequent variety of seasons, we must recollect that the axis of the earth, about which it performs its daily revolution, thereby producing the alternation of day and night, is not perpendicular to the plane of the earth's orbit, but inclined at an angle of $23\frac{1}{2}$ deg. If the axis of the earth had been perpendicular to the plane of its orbit, the plane which divides the enlightened from the dark side of the earth, would always have passed through the two poles, and would have constantly revolved on the same axis with the earth itself. The consequence would have been that the days and nights, in all parts of the globe, would always, at all times of the year, have corresponded exactly to each other, being precisely twelve hours each; and that, so far as concerns this matter, the motion of the earth in its orbit would have produced no result at all. This would have affected not only the length of the days, but the climate also. The degree of warmth produced by the rays of the sun, depends upon the perpendicularity with which those rays fall. Thus at noon, when the sun is high in the heavens, its rays produce a much greater warmth than early in the morning, or at night, when they fall in a very oblique or slanting direction. In the case above supposed, the axis of the earth being perpendicular to the plane of its orbit, the rays of the sun, at noon, would always have fallen perpendicularly at the equator, the sun then being directly over head; while toward each of the poles, the noon-day height of the sun would have gradually diminished, till at each pole it would have remained, during the whole twelve hours it was visible, just in the horizon, with a small apparent motion from east to west. The consequence would have been,

that at the equator, there would have been felt a constant summer, much like what is experienced there at present. This summer would gradually have passed off, on both sides of the equator, into two zones of moderate temperature, which would have been gradually succeeded by two zones of perpetual winter.

The inclined position of the earth's axis, has produced a very different distribution of the sun's heat. At the vernal equinox, when this inclination of the earth's axis is neither from nor towards the sun, it produces no effect whatever, and the distribution of light and heat is for the moment precisely the same which it would have been all the year round, had the earth's axis been perpendicular to the plane of its orbit. Of course, at that moment the days and nights are equal throughout the globe. The sun is vertical at the equator, and visible, just in the horizon at both poles. But the moment the earth leaves that point of its orbit, and advances onward in its course, the north pole begins to lean constantly more and more towards the sun, and the south pole to be withdrawn more and more from it, till at the end of three months, at the summer solstice, there is round the north pole a space of $23\frac{1}{2}$ deg., in which the sun is constantly visible, not setting at all, but appearing to describe a small circle in the southern quarter of the heavens.

At this period the sun is vertical at noon, not at the equator, but at the tropic of Cancer, and the heat of this vertical sun is experienced for a period of thirteen and a half hours. Of course a greater heat is then felt there, than is ever felt at the equator. The belt about the equator is not therefore, as many are apt to suppose, the part of the earth's surface at which the greatest heat is felt. It is never so hot there as it is in the two belts on each side of it, in the vicinity of the two tropics. Not only are the days longer than at the equator, during the period at which the sun is vertical at the tropics, — but in the belt on either side of the two tropics, extending from 15 deg. to 25 deg. of latitude, the period at which the sun remains nearly vertical amounts to nearly three months annually, and during that protracted period of a nearly vertical sun, a great degree of heat is produced; whereas at the equator, though the sun is vertical twice in the year, the motion of the earth in its orbit, alters so rapidly the vertical direction of the sun's rays, that the equatorial belt of 24 degrees, including 12 degrees on each side of the equator, does not enjoy a sun nearly vertical for more than two months in the twelve, and those two months separately, at intervals of half a year, or nearly so.

If, however, the heat of the equatorial belt never rises to so high a point as that of the two tropical belts, it is more steady and uniform.

The greater degree of heat in the tropical belts, will serve to explain why all the great burning deserts of the earth, such as Sahara, the deserts of Arabia, Persia, India, and the interior provinces of Mexico, and in the southern hemisphere, the burning deserts of northern Australia, of Bolivia and Peru, are all found within the tropical belts — by which we understand belts on both sides the two tropics, each including eighteen degrees of latitude, extending from 12 degrees to 30 degrees.

The ancients, when they approached the tropic of Cancer, and found the great degree of heat prevailing there during the summer solstice, reasoning from analogy, that the nearer the equator was approached, the hotter it must grow, came to the hasty conclusion, that the equatorial regions must suffer from a burning heat unendurable by man. The facts above stated, serve to explain how it happens that this conclusion was not correct.

While the earth remains with the north pole pointed towards the sun, the rays of the sun fall more perpendicularly upon all the northern hemisphere, and continue to enlighten it for more than half of the twenty-four hours, leaving less than half for the other hemisphere. This, in all the parts of the earth north of the equator, is the period of long days, and of summer. Within the tropics, the days do not exceed thirteen and a half hours in length, but beyond the tropics, as the summer solstice approaches, the days become longer and longer, though they do not exceed twenty-four hours till the Arctic circle is passed. From the Arctic circle to the pole, the length of the day varies rapidly from twenty-four hours, to six months. Of course we here mean by a day, not the period of the revolution of the earth on its axis, which must be uniform in all parts of the earth, but the apparent day, the period during which the sun remains above the horizon.

Though at all times, in those parts of the earth greatly removed from the equator, the

rays of the sun fall very obliquely, yet the length of the day makes up, to a great extent, for the obliquity of the rays; so that even within the polar circle, during that part of the year in which the sun remains constantly above the horizon, a great degree of heat is, for the time, attained. But this does not last long. The earth passing on in its orbit begins gradually to withdraw its north pole from the sun, till at the end of three months more, the autumnal equinox occurs, at which period the earth is again situated, with respect to the sun, precisely as it was at the vernal equinox, only on the opposite side of it; and the days and nights are again equal throughout the globe. Passing on in its orbit, the earth now begins to turn its north pole more and more from the sun. The pole itself is enveloped in a perpetual night, which lasts for six months, and this night gradually descends towards the equator, till at the end of three months more, at the winter solstice, it overspreads a circle of $23\frac{1}{2}$ deg. of latitude from the pole as a centre. Along with this night comes a terrible winter, the cold increasing more and more the longer the sun is withdrawn. Meanwhile in those parts of the northern hemisphere, not within the polar circle, the days grow shorter and shorter, till at the winter solstice, they become shortest. At the same time the rays of the sun fall more and more obliquely, and of course afford less and less heat. This period of the earth's circuit round the sun is thus, in the northern hemisphere, the period of short days and of winter.

It is obvious that the position of the southern hemisphere is exactly the reverse of the northern. The south pole is now turned towards the sun, and all the results produced under similar circumstances, in the northern hemisphere, now occur in the southern. The winter in the northern hemisphere is the period of summer for the southern hemisphere. What we call, from its effect upon us, the winter solstice, is to them the summer solstice. But the earth stops not; still it moves on in its orbit, and approaches again to the point from which it started. The south pole now begins to be withdrawn from the sun. During the next three months, the days in the southern hemisphere shorten, and the perpendicularity of the sun's rays diminishes; while in the northern hemisphere, the days lengthen again and the heat of the sun becomes more powerful. At the end of twelve months from the commencement of the revolution, the vernal equinox is again reached, and the variations in the length of the days and in the position of the earth with respect to the sun's rays, are completed. The year is finished, again to begin, and to repeat unceasingly the same course of revolutions.

Two things, however, require to be specially noticed. One is, that the periods of greatest heat and greatest cold, do not correspond exactly with the periods of longest and shortest days, but occur, generally, about a month later. It requires some time for the accumulated heat to produce its greatest effect; and on the other hand, the heat stored up in the earth's surface during summer, is not entirely dissipated, till some time after the period of shortest days is passed.

The other thing to be noticed is, that although the heat and cold of places depend primarily upon their astronomical position on the globe, that is upon the time for which they enjoy the rays of the sun, and the approach of those rays towards perpendicularity, yet that the effects thence resulting are greatly modified by several causes, of which the most important are: 1st, winds, by which the cold air of the colder regions, rushes in towards those which are heated; its place being supplied by the warm air from those heated regions; 2d, currents in the ocean by which the heated water is transferred towards the poles, and the cold water towards the equator; these two causes constantly tending to produce equality of temperature; 3d, difference of elevation, isolated points raised high in the air, parting with their heat with great rapidity, not replacing it by the reflected or radiated heat of surrounding objects, and being greatly exposed to the cold winds; and 4th, the relative position of any given portion of land or water, with regard to other portions of land and water, capable of exercising an influence on its climate. These subjects, so important towards a correct idea of climate and its causes, will be considered in a subsequent article. [See Article 6th.]

The orbit of the earth is not a perfect circle, but an ellipse. The consequence is, that the portion of its orbit traversed from the vernal to the autumnal equinox, is somewhat longer than the portion traversed from the autumnal to the vernal equinox. It thus happens that the summer of the northern hemisphere is a little longer than the summer of the

southern hemisphere. It results however from this same irregularity, that the earth during our northern winter, is at its greatest distance from the sun, whereas during the southern winter, it is at its least distance. The difference in the quantity of heat, thus occasioned, is however very trifling.

III. FIGURE OF THE EARTH. MAPS AND CHARTS. LATITUDE AND LONGITUDE.

1. *Figure of the Earth.* It was long supposed that the figure of the Earth was that of a perfect sphere; and when this was shown not to be the case, it was still supposed that it must be a regular figure, the degrees of latitude increasing or diminishing in uniform proportion. But according to the most recent measurements, this is not the case. The earth is not a precise geometrical figure. It is so far flattened at the poles and so bulges out at the equator, that it is fourteen miles further from the equator to the centre of the earth, than it is from the poles to the centre.

It results from this that the power of gravity is not so great at the equator as it is at the poles, and the intermediate points. A pendulum which beats seconds in our latitude, requires to be somewhat shorter in order to beat seconds at the equator. It also results that the degrees of latitude are not precisely of the same length, but that they diminish towards the poles. This difference, however, is not great; though upon maps drawn upon a very large scale it requires to be attended to.

2. *Maps and Charts.* It is only by means of lines of latitude and longitude (which mean simply breadth and length) that we are able to determine the relative position of places on the earth, and so to delineate globes, maps and charts. By these means also the traveller through unknown regions, or the mariner traversing pathless seas, is able to determine, day after day, his precise place on the earth's surface, and to direct his course accordingly. It is by means of a great number of astronomical observations made in all parts of the earth, that the maps we possess have been brought to their present perfection; and it is principally by means of more exact observations constantly made, that these delineations are from time to time rendered more correct.

It must always be borne in mind, however, that our maps are for the most part, only approximations towards correctness. In some parts of Europe, especially in England and France, exact trigonometrical surveys have been made, and the topography of those countries has been laid down with mathematical exactness. A similar survey has been had of the State of Massachusetts; one is now in progress under the auspices of the Federal government of the sea-coast of the United States. But for large parts of the globe, the materials we possess for map-making, are far less to be relied upon. Only a few principal points have been determined with exactness. The outlines which we possess of Asia, Africa and America are tolerably correct;—but a large part of the interior of those countries is delineated from very insufficient information, and may strictly speaking, be said to be quite unknown; and this is true to a still greater extent of Australia. Even the outline of several of the great Oriental islands, is yet unascertained. The same is the case with the northern coasts of Greenland, and America.

3. *Methods of ascertaining Latitude and Longitude.* The methods of ascertaining the latitude and longitude, are among the great boons which astronomy has conferred upon geography; and such is the perfection to which the instruments and tables designed to assist in these calculations have been brought, that they may now be easily practised by any one. The term longitude or *length* is applied to distance east or west, because that is reckoned through half the circle; distance from the equator, being reckoned only through a quadrant, is called latitude or *breadth*.

The latitude is ascertained by observing, with a quadrant, the meridian altitude of the heavenly bodies. That point of the heavens towards which the north pole points, called the celestial north pole, will always have an apparent elevation or depression, corresponding to the position of the observer upon the earth's surface. If the spectator is at the north pole of the earth, the celestial north pole will be directly over his head, that is, it will be elevated 90 degrees above the horizon; if the spectator is at the equator, the celestial north pole will be just in the horizon, without any elevation whatever. For

every degree that he advances from the equator towards the north, the celestial north pole will be elevated one degree above the horizon. If, on the other hand, he goes south, the celestial north pole, for every degree that he goes, will be depressed one degree below the horizon. It is plain, then, that if we can ascertain, at any place, the distance of our zenith from the celestial north pole, and thence the elevation or depression of that pole above or below our horizon, we shall know exactly our distance from the equator, in degrees of latitude, and whether that distance is north or south. Now tables have been carefully calculated, showing the position of the sun each day in the year, with respect to the celestial equator, and of course its position with respect to the celestial north pole; so that by observing the apparent altitude of the sun at noon, we are able from that observation to calculate the elevation or depression as respects the place of observation of the celestial north pole, and thence to determine the latitude. Similar tables have been calculated as to several of the brightest fixed stars.

The determination of the longitude of a place as compared with some other place,—that is, the distance apart of those two places, measured on the equator, depends upon the fact that as the entire revolution of the earth on its axis is completed in twenty-four hours, therefore in every hour the earth revolves through a distance of fifteen degrees of longitude, or one degree in four minutes. Thence it follows, as the motion of the earth is from west to east, that for every degree we go westward, the apparent time as shown by the sun and stars, becomes slower by four minutes; and for every degree we go eastward, the apparent time becomes faster by four minutes: that is, the sun and the fixed stars rise and set sooner by four minutes for every degree we go eastward, and later by four minutes for every degree we go westward. If therefore we observe an eclipse, or any other phenomenon, which takes place for all parts of the world, at the same absolute period of time, and if we know the apparent time at which this phenomenon takes place at Greenwich for instance, by comparing our observed time with this known time, the difference of time, allowing four minutes of time for one degree of longitude, will show our longitude from Greenwich, which will be east longitude if the time at the place of observation be earlier than it is at Greenwich, or west longitude if that time be later. It is upon this principle that longitudes are calculated, not only from eclipses of the sun and moon, both of which methods are liable to some uncertainty in practice, and which can only be employed a few times in the year, but from the eclipses of the satellites of Jupiter, which are constantly occurring; or according to the method commonly used at sea, by what are called *lunar observations*, that is, measuring with a sextant the angular distance of the moon from the sun, or from some particular fixed star, noticing the exact time of the measurement, and then by means of tables, which show what the time was at Greenwich, or some other place for which the tables are calculated, when the same angle was seen there, ascertaining the difference of time between our observation of a particular angle and the occurrence of that same angle at Greenwich, or some other fixed point from which longitude is reckoned. Knowing the difference of time, of course we know the difference of longitude. Another, much simpler and more expeditious method of ascertaining the longitude, has come lately into use. This consists in having a chronometer, or time-keeper, regulated to keep exact time, and set to Greenwich time, or to the time of any other place from which it is proposed to reckon the longitude. This chronometer the traveller or mariner carries with him, and when he wishes to know his longitude, he makes an observation of the altitude of the sun at the same moment that another person observes and notes the time by the chronometer. From the observed altitude of the sun, knowing the latitude, he calculates the apparent time at the place of observation, and comparing that time with the time of the chronometer, he thence determines his longitude. This method would be perfect, if chronometers could be rendered perfect; and the very great improvements which have of late years been made in the construction of those instruments, has caused them to come into almost universal use at sea.

There is no fixed point from which longitude is reckoned, as latitude is from the equator. Some meridian is assumed as the first. Thus the English reckon from Greenwich, near London, where the Royal Observatory is; and the French, from Paris. The Americans sometimes reckon from Washington. It is desirable that some first meridian should be assumed by the common consent of civilized nations, and that all should alike reckon from that.

IV. CONTINENTS. ISLANDS. TIDES. SALTNESS, COLOR, AND PHOSPHORESCENCE OF THE SEA.

1. *Continents*.—All calculations as to the relative extent of land and water, and the sizes of the different continents and islands, are to be received with some allowances. The extent of Greenland still remains unknown, and it is as yet undetermined how far the American continent extends to the north, and what islands lie beyond it.

There are also strong reasons for believing in the existence of a vast Antarctic continent, occupying a great extent about the south pole. Land has been discovered, at numerous different points, in about the latitude of the Antarctic circles, by various navigators. The recent French and American Exploring expeditions sailed, for a great distance, along what seemed to be the shore of a frozen southern continent, though the icy, inclement, and precipitous coast prevented them from landing. This coast lay to the south of New Holland, in the latitude of the Antarctic circle, or about 66 deg. of south latitude. It is not easy to explain upon any other theory except that of a frozen Antarctic continent, the great degree of cold which prevails in high southern latitudes, far exceeding that of the corresponding northern latitudes. If there were an open sea all south of the known continents, the high southern latitudes ought to be warmer than the corresponding northern latitudes.

Islands.—The number of islands, in the whole, is very great; they are of every size, from a mere speck or bare rock just elevated above the water, to those capable of furnishing a home for great nations, and even to the two great Eastern and Western continents, which are only islands on a great scale. It is observed of islands, that they enjoy a more equable temperature than continents, from the circumstance that the water with which they are surrounded is not so good a radiator of heat as the land. To the same circumstance is to be ascribed the land and sea breezes, the sea-breeze blowing during the morning, and the land-breeze during the night, which also tend to preserve an equality of temperature in islands. The more extended sea-coast which islands enjoy, is also a great advantage in several ways. The salt which the air brings with it, is a great fertilizer; and to this, as well as the moisture from the same source, is to be ascribed the peculiarly verdant appearance which many islands present. The facilities and excitements to navigation which islands offer, cause islanders in general to be sailors, and even those, such as the islanders of the Pacific ocean, who have made but trifling advances in civilization, have attained to more skill in navigation than in anything else.

Though islands are to be found scattered here and there through all the oceans, it is to be observed, in general, that they are much fewer in the Atlantic than in the Pacific and Indian oceans. The seas, bays and inlets from the Atlantic, such as Hudson and Baffin's bay, the Gulf of St. Lawrence, the Gulf of Mexico, the Caribbean sea, and on the other coast the North sea, the Baltic, and the Mediterranean, contain indeed a large number of islands; and many of those in the European seas especially, have played a very conspicuous part in the history of mankind. But in the main, open Atlantic, the number is very small. North of the equator we find only the groups of the *Azores*, the *Bermudas*, *Madeira*, the *Canaries*, and the *Cape de Verdes*. South of the equator they are still fewer. *Ascension Island* and *St. Helena*, occupied by the English, mere single islets of volcanic rocks, but of some importance, as affording stopping places to vessels bound to India, and the *Falkland* group, far to the south, also lately occupied by the English, are the principal.

In that vast tract of ocean stretching from the eastern coast of Asia and Africa to the western coast of America, we find as it were an island world, to which the general title of *Oceanica* has been given. Besides Australia or New Holland, the size of which has obtained for it the title of the third or southern continent, we have islands and groups of islands, endless almost in number, many of them small and uninhabitable, but others of very great size and capable of accommodating an immense population; some of them, indeed, are already populous; but as this portion of the world is as yet very imperfectly known, we cannot speak with any certainty as to the amount of their population. Beginning with *Madagascar* on the coast of Africa, large enough to be a great kingdom,

and having a large population, we notice *Bourbon* and *Mauritius*, two small islands of about 600 square miles each, in the Indian ocean, which having been colonized by Europeans and planted with coffee and sugar, have obtained on that account, an importance disproportionate to their size. *Socotra* near the entrance to the Red Sea, is famous for its aloes; *Ceylon*, 20,000 square miles in extent, with a population of a million, celebrated for its cinnamon, and into which the cultivation of coffee has been more recently introduced, is now possessed by the English. The *Javan Group*, or *Banda Islands*, besides the great islands of *Java*, *Sumatra*, *Borneo* and *Celebes*, includes a vast many others, and among them many of great size and fertility. Java is possessed by the Dutch, and of late years through the extended cultivation of sugar and coffee, has risen rapidly in commercial importance. The Dutch are also gradually extending their conquests over the principal islands of the group. East of Celebes lies the famous group of the *Moluccas* or *Spice Islands*, where alone originally grew the clove and the nutmeg. *Gilolo* is the largest of these; *Ternate* and *Tidore*, though very much smaller, are more celebrated in history and poetry. The Dutch have forts and factories here. Still farther west, is *Papua* or *New Guinea*, a vast island very little known, with many other large islands belonging to the same group. Further west and south are the two great islands of *New Zealand*, now beginning to be colonized by the English; and off the southern extremity of *New Holland* is *Tasmania* or *Van Dieman's Land*, also an English colony. To the north of Borneo, lies the group of the *Philippines*, including besides *Mindanao* and *Luzon*, several other large islands. The Spaniards possess a part of *Luzon*, — the others are independent. North of the Philippines, is *Formosa*, a Chinese island; and further north the celebrated group of the *Japan Islands*, the seat of a numerous and remarkable nation, of which, however, we know very little. To the eastward of these groups of great islands, and between them and the American continent, lay scattered far and wide, a multitude of clusters of smaller islands, and uninhabited islets, known by the general name of *Polynesia*. The extension of the whale fishery and of commerce, has of late years made us familiar with many of these groups, especially the *Sandwich Islands*, the *Society Islands* and the *Marquesas*, lately taken possession of by the French, the *Navigators* islands and *Friendly* islands. Missionaries and merchants are daily pushing their way more and more among these groups. They are becoming better known, and the natives are acquiring the arts, and it is to be feared, too many of the vices of civilized life. *Pitcairn's* island derives an interest from the origin of its inhabitants, and the *Pelew* and *Loo Choo* islands from the full and interesting accounts which we possess of the natives. But this is a subject to be more fully treated under the head of *Oceania*.

3. *Tides*. As water is a substance so mobile, its particles are more easily drawn from their places than those of the earth, by the powers of gravity and inertia. Hence the ocean is raised up in a broad ridge or ring in that portion of it which is most directly exposed to the attraction of the sun and moon, and also upon the opposite side, where the earth is, as it were, drawn away from the water. As the moon, though so much smaller than the sun, is so much nearer the earth, and as the force of gravity diminishes with the square of the distance, the moon plays a much greater part in the phenomenon of tides than the sun. We may conceive two great tidal waves compassing the earth like broad rings; one caused by the attraction of the sun, and the other and much larger one, by the attraction of the moon; the earth passing under each of these rings twice every 24 hours. Once a month the sun and moon are in conjunction, that is, they both attract in the same direction; it thus happens that these two tidal rings coalesce, and thus are produced those monthly high tides called *springs*. Once a month the sun and moon are in opposition, they then attract in opposite directions, and the tidal rings tend to counterbalance and destroy each other; hence result those monthly low tides, called *neaps*. The intermediate tides are high or low, in proportion as the time of springs or neaps approaches. The lunar tides conform to the rising of the moon, by following each other about 50 minutes later every day. The solar tides take place at the same hour every day, but their effect only becomes perceptible in their tendency, according as they combine or oppose, to increase or diminish the height of the lunar tides.

In giving this theory of the tides, we have supposed, for the sake of simplifying our

view, the earth to be one uniform sheet of water. It is evident that the great masses of the continent stretching from north to south, must greatly interrupt the motion of the tidal rings, and modify their result. It is to be observed that the effects of the tidal rings in raising the level of the water is not perceptible in the broad ocean, where there is nothing to interrupt the gradual onward motion of the tidal wave. It is only when that wave encounters the obstacle, not of some petty island, but of a broad reach of land, that the water is piled up as it were in a wall, and being thus accumulated, tumbled upon the shore. Hence the shape and position of the land have a great effect upon the height of the tides.

Where the water of the tidal wave is poured into a funnel shaped aperture, like the bay of Fundy, and the wide mouthed rivers on the west coast of England and Scotland, it sometimes rises to a very great height. The interruptions of the tidal wave by intervening lands, give rise to currents, which themselves again greatly affect the tides. They are also much operated upon by winds, especially on shallow coasts.

4. *Saltiness of the Sea.* It is now pretty generally agreed that the saltiness of the sea is produced by the salts contained in the earth, and which are dissolved in the running water and carried into the sea. The constant evaporation going on upon the surface of the ocean, takes up only the water, and leaves the salts behind. As this evaporation is much greater under the equator than about the poles, and as the tropical rains must supply the rivers emptying into those seas with a large proportion of salts washed from the earth's surface, we can easily understand why the saltiness of the sea is greater at the equator than in the polar regions, where not only is the evaporation less, but the supply consists chiefly of melted snow and ice, containing but little if any salt.

5. *Color and Phosphorescence of the Sea.* The usual color which sea-water exhibits is a bluish green, of various shades. Some maintain, that this is its true and proper color; others, that it is an optical illusion, occasioned by the greater refrangibility of the blue rays of light,—opinions which may both be true to a certain extent. The ocean seems often to assume various other colors; some of them no doubt real, but as often illusory. Among the more general sources of deception, may be reckoned the aspect of the sky; thus an apparently dark-colored sea is a common prognostic of an approaching storm; not that the water then is really blacker than usual, but the dark color of the clouds indistinctly seen in or reflected from the waves, is mistaken for the color of the sea itself.

The variety of colors in the sea may probably arise from animal and vegetable matters diffused through the waters in a putrescent state, and communicating various tints. The yellow and bright green shades seem to be owing to living marine vegetables, which grow at the bottom, stretch their fibres through the water, or spread over the surface.

The phosphorescence of the sea is a common but very remarkable phenomenon, concerning the cause of which authors are not agreed. But most probably, as Newton conjectured, it proceeds from a variety of causes. It has been ascribed to luminous animals

and to the phosphorescence of semiputrescent matter diffused through the ocean. It is well known, that various fishes and other marine animals, emit light, which does not in every instance appear to be voluntary, or to depend on the vital principle, as, in some of them, it continues, and perhaps increases, after death; but motion seems to be either a principal cause, or at least an exciting one; for this light more rarely occurs, and is much fainter, in still water, whilst it becomes more and more brilliant as the motion increases. It is also more abundant immediately before and during storms. It is in the midst of this phosphorescence



Mother Carey's Chickens.

when the waters are unusually agitated, that the Stormy Petrel, or Mother Carey's Chickens, as they are called by the sailors, delight to hover over the waves.

V. SURFACE OF THE LAND. MORAL EFFECTS OF ITS CONFIGURATION.

That the configuration of the surface of the earth must produce a great effect upon the plants and animals that inhabit it, and upon man not less than upon the rest, is a fact, the importance of which towards a correct view of the history, position and prospects of the human race, is only now beginning to be understood.

Taking the level surface of the ocean as a common commencement or basis of reference, it is an obvious fact, that the dry portions of all the continents, rise more or less, though very irregularly, above the surface, so that we can scarcely conceive of the existence of large regions in the interior of the continents of Asia for example, which are surrounded by mountains, and depressed below the general level of the ocean. Facts of this kind do however exist, though indeed only as remarkable exceptions. Comparatively few cases are well ascertained, such as that of the valley of the Jordan and the Dead Sea, which lies from 700 to 1300 feet below the level of the Mediterranean; or they escape our attention, because these depressions are generally filled with the waters of inland seas or of large lakes. Such is the case with the Caspian Sea, of which the depth is unknown, but whose surface is some forty feet lower than that of the ocean. Thus also with the great fresh water lakes of north America, the bottoms of which are from 300 to 400 feet below the level of the sea. The bottom of lake Maggiore, at the southern foot of the central Alps, in Italy, is likewise nearly 2000 feet lower than the surface of the Adriatic.

The rise of the continents from the shores of the ocean is very irregular. Sometimes it is so gradual, as in the plains through which flow the Amazon and the Mississippi, that the eye is unable to perceive it, and we infer its existence only from the flowing of the river. To ascertain it positively we must resort to the instruments of the engineer, which will indicate a rise of only a few inches in a mile. Elsewhere the masses of land rise at once to the elevation of several thousand feet, as in Mexico, and form high plateaus, more or less uneven in their surfaces. Here steep mountain chains shoot from the coast, as in Peru, and send their summits into the region of the clouds. There deep valleys separate the various ridges, or cut them through transversely as in those fearful



chasms of the Andes, known as *quetrados*, or sometimes, as in Oregon and the great plains at the eastern foot of the Rocky Mountains, trace furrows one or two thousand feet deep in the solid unbroken mass of the plateaus. Yet notwithstanding the vast variety of ways in which the surface of every country is moulded and its reliefs composed, they may all be referred to two great classes, each divisible into two well marked varieties, viz: 1. The elevation in one mass of large surfaces, and 2. The elevation in a relatively narrow line. Elevations of large surfaces are called

plateaus, or low-lands, when they are level, and but little raised above the ocean. They are called plateaus or table-lands when they present a vast unbroken mass, with one elevated summit or platform, the surface of which, whether level, rugged or mountainous, is still at a considerable height above the sea. Elevations in a relatively narrow line form the various chains of mountains, and those at a single point, detached mountains.

These four forms of low plains, high plains or plateaus, mountain chains and detached mountains, combine with each other in the most diversified manner; though generally the plateaus are associated with the mountains, which seems natural, as both are the result of the most powerful upheaving forces. It is the peculiar mode in which these forms are combined, which gives to each continent and tract of land its characteristic surface and profile. Of how great importance this characteristic of a country is, much as it has been overlooked till within a quite recent period, will appear from a few considerations. A little observation will satisfy us that vast as is the mass of the globe, and of that coating of atmosphere by which it is surrounded, organic life exists only on the earth's surface. There, where the ocean, the atmosphere, and the dry land meet, at the contact of these three great combinations, reacting upon each other in a thousand ways, and aided by the beneficent influence of the heat and light of the sun; there, and there only, vegetation springs up, and animal life comes into existence. But the range of this region of life is very limited. As we depart from the level of the sea, whether ascending into the heights of the atmosphere, or descending into the depths of the ocean, we find that heat and all the conditions of a strong physical life, gradually diminish, and we soon reach the cold and barren dominions of physical death. Even in the most favored parts of the tropical regions, at a height of from 15,000 to 17,000 feet, and much lower in other zones, vegetation, after having lost, at every stage of its ascent, some portion of its vigor and luxuriance, ceases entirely, and a uniform coating of perpetual snow and ice destroys its faintest traces, and stifles the last breath of life. At the elevation of the highest peaks of the Andes or of the Himalaya, from 25,000 to 28,000 feet, the atmosphere loses two-thirds of its weight, and the cold and rarefied air is unfit to sustain the life of organized beings. At the depth of a few thousand feet, or even of a few hundred feet, the absence of light, the low temperature, and the excessive pressure, convert the ocean into a desert as uninhabitable as the lonely summits of the mountains. A layer, of about five miles thick, is the only portion of the globe in which organized life is possible. Even under the most favorable circumstances, three miles is the height of the vertical zone in which vegetation exists, and in which man and animals can form a permanent abode; while two miles and a half is the utmost limit within which agriculture can be carried on and extensive human societies can exist.

The scale of altitude by which we pass from the hottest and richest to the coldest and poorest countries, from life to death, being thus so short, it is very easy to perceive the immense influence which the relative elevation of a country or place above the level of the sea must exert upon its climate and its whole nature. An elevation of from 300 to 350 feet, which is not equal to the height of many structures reared by the hand of man, is sufficient to lower the mean temperature of a place one degree of Fahrenheit's thermometer, thus producing the same effect as if it were removed one degree further north at the original level. On the slopes of the Andes, at an elevation of 2,000 feet, the hot region, with the true tropical cultivation, ceases. At 6,000 feet, the tropical forms of plants disappear, and we behold a vegetation which brings to mind that of the warmer regions of the temperate zone. Higher still, at 8,000 feet, the cereal grains remind us of the colder temperate regions; while at 12,000 feet, the naked wastes of the Paramos, carry us to the arctic regions; which, in the temperate zones, may be arrived at by half that elevation or less. We must always recollect, however, that there are great differences in the effect of the same elevation, even under the same latitude, in the cases of an isolated mountain top, of wide-spread plateaus, and especially of elevated valleys surrounded by mountains; differences produced by the rapid radiation of heat in the one case, and the compensating effects of reflection in the others.

The extent of the difference of elevation, compared to that of the mass of the earth, is very small. On a globe of twenty feet diameter, an elevation of less than a sixth of an inch would represent the highest mountain. Yet these differences produce moral and political results not less remarkable than those of a physical kind. Thus, for instance, mountainous countries enjoy not only the advantage of abundant rains, pure water and air, and accessibility of the mineral productions of the earth, but what has been and is of great importance, defensibility against the inroads of enemies. They have the disadvantages of a less fertile soil, and difficulty of communication.

Level plains present great advantages for locomotion ; but they are apt, especially if interior and elevated, to suffer from want of sufficient rain, from the stagnation of such as does fall, producing pestiferous marshes, by which the air is poisoned ; and though often, especially in the valleys of great rivers, they present tracts of surprising fertility, they are very difficult to defend, and easily fall a prey to an invading enemy.

While in mountainous countries there is a tendency in the people to form themselves into small, independent clans, in great plains there is a tendency towards the formation of vast monarchies,—any one tribe which, by accidental circumstances, has attained a superiority, easily succeeding in conquering all its neighbors, one after another, and combining them into a vast empire.

It seems probable that the fertile banks of rivers, like those of the Euphrates, the Nile, and the Ganges, by the abundant supply of the necessities of life which they afforded, may have been the earliest seats of civilization ; but those countries, by reason of their indefensibility, have been easily overrun and subdued by barbarian conquerors, in whose hands the progress of civilization has soon come to a stop. It is in mountainous countries, like Greece and Italy, which enabled the inhabitants to offer a successful resistance to invaders, that civilization has been carried onward ; and it is this peculiarity in its face, which has contributed not a little to make Europe the seat of modern civilization.

The same cause may be traced in its operation upon neighboring and sister countries. Thus the great difference in the political and social position of Scotland and Ireland, may perhaps chiefly have arisen from the fact that Scotland, from its mountainous character, has been enabled to offer a successful resistance to every invader, or soon to shake off the yoke ; while Ireland, destitute of mountains, except on its extreme western coast, has been easily overrun and subdued, and is easily kept in subjection. It is by general views like these, and which might easily be extended to a great length, that Physical Geography may be made to shed a strong and valuable light upon the political and social history of the human race.

VI. SPRINGS. ARTESIAN WELLS. GLACIERS. AVALANCHES. RIVERS.

1. *Springs.*—The apparent layers, of which the crust of the earth is composed, are generally to be found not in a perfectly horizontal position, but more or less inclined to the horizon. These layers also are cut by great valleys, usually the beds of streams, so that their edges *crop out*, as it is called. It is upon these declivities, where one layer crops out from beneath another, that springs are usually found. The different layers, of which the crust of the earth is composed, have a very different power of retaining or transmitting water. There are some, such as sand and gravel, through which the water freely penetrates ; and others, such as clay and rocks of various descriptions, which are absolutely impervious to it. Thus in digging wells, water is generally found whenever the bed of sand or gravel is penetrated, and a hard bed of clay or rock is approached. If, however, the clay or rock lies upon the surface, it must be penetrated before water can be found.

All the rain that falls tends constantly, by the force of gravity, to seek the lowest level. Such as cannot run off from the surface, evaporates ; or, if the earth on which it falls is of a penetrable description, sinks through it. It continues to permeate till it arrives at some layer impenetrable to water. As these layers, for the most part, are arranged in a more or less oblique position, when the water can no longer sink in a perpendicular direction, it soaks downward along the declivity of the permeable layer, till at last that layer crops out in some valley, or the bed of some river or lake. Here the water bursts forth in the form of a spring. In this way, a portion of the rain water sinks gradually to great depths, and passing through various media, becomes much impregnated with them, before it makes its appearance again at the surface. Hence the various mineral springs. The hot springs are supposed to derive their warmth from the internal heat of the earth, a subject to which we shall again presently refer. As rivers always run at the lowest levels of the country through which they pass, and generally flow in deep valleys, we can understand how they will be perpetually fed by springs, independent of the tributaries which they receive.



Geysers, or Hot-Springs of Iceland.

Where the water permeates to a great distance before it finds its discharge, it frequently collects in great streams, and bursts forth from the earth almost a navigable river. There are several such remarkable river-heads in Florida. In many cases, the springs find their discharge only below the surface of the sea. There are several cases known, in which fresh water thus bubbles up in the ocean, in great quantities, even out of sight of land. The fresh water tends strongly to rise to the surface because it is lighter than salt water.

2. *Artesian Wells*.—In some countries, where the surface-layer of the soil is of a kind very permeable to water, such as sand, and this layer extends to a great depth; or where the surface-layer is impregnated by salt, or lime, or some other substance which makes the water unfit for use, and is immediately succeeded by a thick layer of clay, lime, or something else which contains no water at all; and especially if the surface is very level, great difficulty has been experienced in obtaining a supply of good water. In such countries, the springs are rare and the spring-water bad, while the ordinary method of digging wells is hopeless. This has given rise to a practice of boring for water, whereby a hole is drilled or bored through the superincumbent strata containing bad water or none at all, and the drill is carried down till it reaches some layer containing good water. This water must have originally fallen upon the surface, at a greater or less distance from the bore, and must gradually have soaked through the layer containing it, till it has reached the place where that layer is penetrated by the auger. But according to a well known principle of hydrostatics, water carried through a tube or other channel which confines it, will always rise in that tube or channel to a level with its original source. Hence the water rises through the bore of the auger often to a level with the surface; and, in some cases, when it has been derived from a high source, it spouts out with great violence, and rises to a level far above the surface.

Wells thus made are called *Artesian wells*, because they were first used in Artois in France. One has lately been completed at Paris, after years of labor, on a very large scale. It is the deepest in the world. It penetrates, for nearly half a mile, the bed of gypsum (plaster of Paris) upon which that city is built; and the water, which is quite warm, rises up with great force, near a hundred feet above the surface. These wells are now in common use in almost all parts of the world, and have proved of great utility. It has even been proposed to try the experiment in the desert of Sahara, for the purpose of supplying the caravans; and, very likely, the French will do it.

3. *Glaciers*.—Though the glaciers that descend from the heights of the Alps, down the valleys of those mountains, have all the appearance of being solid bodies of ice; yet it is well ascertained that they have, in summer, a slow, progressive, downward motion. As they are thus perpetually moving forward, they would presently fill up and overwhelm the cultivated valleys beneath, were they not constantly melting at their lower ends, and passing off, as running streams of water. Many attempts have been made to account for and explain the downward motion of these glaciers, but without much success, till it has lately been suggested that though composed externally of solid ice, they consist internally of consolidated snow, more or less permeated by water. In the heats of summer, as this water is increased in quantity, the whole internal body of the glacier acquires a semi-liquid character, and slowly moves down the valley by the effects of gravity.

4. *Avalanches*.—Vast masses of snow and ice, called avalanches, are sometimes, in the heats of summer, broken off from the body of the glaciers, and, tumbling headlong down the sides of the mountains, have swept everything before them. It has repeatedly happened in Switzerland, that whole villages have been overwhelmed by these masses of snow and ice. In some particular cases, some of the unfortunate inhabitants, though thus buried alive, have, by the bursting of the mass, enjoyed an accession of fresh air, and have thus been able to preserve their lives for weeks, till they were disinterred by their neighbors.

5. *Rivers*.—The length of the rivers, given in the table contained in the body of the work, must be taken as approximate only. Many of the principal rivers mentioned in it have never been surveyed at all; and, in all accounts of the length of rivers, must vary greatly with the extent to which, in estimating that length, the sinuosities are followed.

But the length of rivers is but a very uncertain test of their relative importance. That depends very much more upon the quantity of water which they discharge, and satisfactory means of measuring this are not often very attainable.

The number of rivers in the Eastern continent has been estimated at about *four hundred and thirty*, and in the Western continent at about *one hundred and forty*, counting as separate rivers not all the little streams which flow into the larger ones, but only such as have a separate discharge into some ocean, sea, or inland lake or its branches, and of noticeable size. The rivers of the Western continent, though fewer in number, discharge however immense volumes of water, quite unparalleled in the Eastern continent.

Some portions of the globe suffer greatly from an insufficiency of rivers. America is very well watered, and so is Europe and parts of Asia; but Africa is very deficient in rivers, and Australia labors under the same difficulty.

Many of the larger rivers are of great utility for purposes of navigation, though it is only by the very recent invention of steamboats that their utility in this respect has been fully developed. Even the smaller streams, not capable of being navigated themselves, have, by modern science, been converted into feeders to canals, which are artificial rivers much better adapted than natural ones to the purposes of navigation. But the still more modern invention of railroads, from the superior rapidity of conveyance, and their independence of the seasons, threaten to supersede both rivers and canals.

6. *Declivity of Rivers*.—A very slight declivity will suffice to give the running motion to water. Three inches per mile, in a smooth, straight channel, gives a velocity of about three miles an hour. The Ganges, which gathers the waters of the Himalaya mountains, the loftiest in the world, is, at eighteen hundred miles from its mouth, only eight hundred feet above the level of the sea; and, to fall these eight hundred feet the water requires in its long course, more than a month. The great river Magdalena, in South America, running for a thousand miles between two ridges of the Andes, falls only five hundred feet in all that distance. Above the commencement of the thousand miles, it is seen descending in rapids and cataracts from the mountains. The gigantic Rio de la Plata has so gentle a descent to the ocean, that in Paraguay, fifteen hundred miles from its mouth, ships are seen which have sailed against the current, all the way, by the force of the wind alone; that is to say, which in the beautifully inclined plane of the stream, have been gradually lifted by the soft wind, and even against the current, to an elevation of a thousand feet.

VII. CLIMATE. WINDS AND RAINS.

1. *Characteristics of Climate*.—The three great elements of climate are the temperature, the winds, and the rains. If we know the amount and the distribution of these three elements throughout the year, especially of the first and last, we may fairly say that we know what the climate of a place is. The distribution and character of the winds is chiefly of importance as it modifies the amount and distribution of the temperature and the rains. Heat and water are equally necessary to vegetable and animal life. Heat without water is death, as we see in the burning deserts of Sahara and Atacama. Water without heat is death also, as is proved by the bare and frozen plains of Siberia and Arctic America, where vast sheets of fresh water cover great spaces, and immense and powerful streams, among the largest in the world, flow uselessly through a frozen soil, which they are unable to fertilize.

Much heat and much water clothe the earth with that thick and abundant vegetation, whose richness and gorgeousness we so much admire in the regions near the equator. Much heat and little water produce the scanty, concentrated and aromatic plants of hot and dry countries. A diminished degree of heat, and a distribution of rain throughout the whole year, moderate in its total quantity, give rise to the more sober and yet distinctly marked vegetation of temperate climates; while the diminished heat of northern regions allows nothing to grow but bushes, grasses, and finally, mosses and lichens. But it is the distribution of heat and moisture not less than their total annual amount, on which climate essentially depends. Two places may have the same mean annual temperature, and the same annual quantity of rain, and yet have no resemblance in their productions. Climates differ much more in their range, their variation from greatest heat to greatest cold, than they do in their mean annual temperature. So it is with rains; it makes all the difference in the world whether the same amount of falling moisture be all concentrated within a few weeks, or be distributed more or less over the whole year; whether the rains be limited to the winter, when they are no immediate aid to vegetation, or whether they extend over the summer also. Thus at Yakutz in Siberia, with a mean temperature of only $13\frac{1}{2}$ deg., yet as the summer, though very short, is hot with a mean temperature of 62, barley may be cultivated on ground which a few feet below the surface remains permanently frozen, while on the Paramos or highest plains of the Andes, though the mean temperature is much above the freezing point, yet for want of summer heat, nothing fit for human food will grow. And thus it happens that those parts of the United States which enjoy the same annual mean temperature with the countries of southern Europe in which flourish the olive and the orange, are yet prevented by the frosty character of their winters, or at least by their liability at that season to be suddenly cooled down by northerly winds to the freezing point, and even far below it, from producing those plants to which frost is fatal; the great heat of their summers making up for this excessive winter cold, and bringing back the annual mean to a deceptive equality with that of southern Europe. Hence with about the same mean temperature of 51 deg. of Farenheit, New York and London have very different climates; that of New York being bright and sunny, with rapid changes; in winter, ice, snow, and good sleighing, with a mean below the freezing point, and in summer great heats, with a mean above seventy; that of London being foggy and cloudy, having a mild and moist winter, with green fields and a temperature of 40 deg., while the warm summer heat of only 63 hardly suffices to ripen the most common fruits, the violent extremes and sudden changes of New York being unknown, the thermometer rarely falling below 14 deg., or rising above 70 deg.

2. *Zones of Climate.* — Geographers, guided merely by astronomical considerations, have divided the earth into one Torrid zone, including all that portion over which, in the course of the year, the sun is vertical; two Frigid zones, including that space about either pole, in which, in the course of the year the sun becomes invisible for twenty-four hours or longer; and two Temperate zones, included between the torrid and the two frigid zones.

Considered as adapted to furnish an idea of the varieties of climate, this division is very defective. With that object in view, the following division seems much to be preferred to it:

1st. The *Equatorial zone*, including twelve degrees on both sides of the equator. This is the zone of equitable temperature, the thermometer, except in those parts of it greatly elevated above the sea, being liable to only a very limited range, and in general not averaging above 80 deg. of Farenheit. The seasons in this zone are only two, the dry and the rainy, except in some parts of it, where, in the course of the year, there are two dry seasons, and two rainy seasons. Within this zone, during the dry season, there will sometimes occur three or four months together, in which scarcely a drop of rain will fall, yet this is made up for, by long and abundant rains during the wet season. On the whole, this zone may be considered to enjoy an ample sufficiency of rain, and in consequence, the vegetation is very rapid and superabundant, and the earth for the most part is covered by thick, and almost impenetrable forests. The torrid zone is commonly spoken of as liable to hurricanes and terrible storms, yet so far as relates to the equato-

rial zone now under consideration, this is wholly incorrect. Within this zone hurricanes are never heard of, and such things as long and violent storms are wholly unknown. The nearest approaches to them are thunder gusts and sudden squalls, which are of very limited duration. Ships within these latitudes have very little to fear; they even generally ride at anchor on the open shore, without the necessity of seeking a harbor.

Over this zone, the trade wind, a steady, constant breeze, ranging from north-east to south-east, blows the whole year, except that for about three months out of the twelve, during the hottest part of the year, each part in succession of the entire zone is liable to calms, during which the trade wind intermits. North of this region of calms, wherever they may happen to fall, the trade wind blows from the north-east, and south of it, from the south-east. The regularity of the trade wind, for causes which will presently be assigned, is also greatly disturbed on the coast of Africa, and in the Indian ocean.

This equatorial zone includes, of land and water, about fifty-eight millions of square miles, or considerably more than a fourth part of the surface of the globe. Not more than a seventh or eighth part of this is land, but that land embraces vast and prolific regions, of which as yet we know little. All the northern portion of South America is contained in it, including the valley of the Orinoco, and of the still vaster Amazons. It is this part of the equatorial zone with which we are best acquainted. It includes also the central portion of Africa, the valley of the Niger, and those vast and probably populous internal regions south of the great desert, of which geography is not yet able to give any account. Further east, it includes the Malayan peninsula, the southern extremity of Asia, and the great islands of Borneo, Sumatra, Java, Ceylon, Celebes, Papua or New Guinea, Mindanao and the southern portion of the Philippine Group, the Moluccas, the Solomon Island, and numerous others, large, populous, and fruitful, of which we know hardly the names, and nothing else.

This equatorial zone is far the most productive portion of the earth. It is the native region of the banana, the yam, the manioc, the pepper, the cinnamon, the clove, the coffee tree, and sugar cane, and of a vast variety of rich fruits and valuable vegetables as yet little known. The constant heat and the want of variety in the climate, tends to produce a weakening and enervating effect; yet, notwithstanding the opinion of some philosophers to the contrary, it is evident that these equatorial regions, possessed now for the most part by savage or barbarous inhabitants, must one day become the seats of great civilized communities.

2d & 3d. *Two Tropical zones*, extend, one on the north, the other on the south side of the equatorial zone, as far as thirty degrees from the equator, each of them thus including eighteen degrees of latitude. These two zones each contain twenty-five millions of square miles or both together, fifty millions, about a quarter of the earth's surface. These may be denominated the *zones of three seasons*, viz., the cold, the hot, and the rainy. In that part of this zone which is nearest the equator, the rainy season is the longest, and extends with some intermissions, over nearly four months; but as we depart from the equator, the rainy season grows shorter, and at length over a considerable part of these zones, it fails almost entirely. Such parts indeed as are so fortunate as to have high mountains in their immediate vicinity, are blessed with frequent showers; but far the greater portions of these zones suffer immensely from want of water, and during the hot season, the heat attains a degree hardly endurable. The cause of this great heat has been already explained in a former article, and the fact of the vast deserts found within these zones, has there been adverted to. These deserts however are not so much owing to the extreme heat, as to the deficiency of rain, either absolute as to quantity, or if the quantity be considerable then, by its all falling within a short portion of the year, leaving the earth during the rest of it to be burned up by a scorching sun.

These zones, too, are the regions of those terrible storms, which under the American name of hurricanes and the Chinese name *typhoons*, are the terror of the mariner. With respect to these remarkable storms, it is to be observed, that they are most frequent and destructive in that half of these zones which is nearest the equator, and that they appear generally to take their rise where the land and water are interspersed, as in the Caribbean sea, among the West India Islands, in the Chinese sea, and in the Indian Ocean in the neighborhood of Madagascar. They move from east to west, and are generally limited, as to their extreme violence, to a narrow tract.

The northern tropical zone includes the West Indies, Central America, and Mexico, with the peninsula of Florida, the northern portion of Africa, Arabia, the southern half of Persia, Chin-India, and the southern half of China. The southern tropical zone includes Peru, Bolivia, Buenos Ayres, and the southern part of Brazil, South Africa, and all the northern part of Australia. In all these countries, as in the corresponding northern zone, irrigation is necessarily resorted to, in order to carry on cultivation, and vast tracts are totally uninhabitable, for want of water. This deficiency of rain no doubt arises from general causes, closely connected with the prevailing winds; but these causes have not yet been sufficiently investigated, and indeed have hardly attracted the attention of philosophers.

Over these two zones, especially in the part of them nearest the equator, the trade-winds prevail during a considerable portion of the year. They are liable, however, to be interrupted during winter by heavy gales from the poles, and, in the autumnal months, by calms and hurricanes. In the northern zone, July, August, September, and October are esteemed the hurricane-months; in the southern zone, January, February, March and April.

4th and 5th. Two *Temperate Zones*, as for want of a better name, we may call them, succeed the two tropical zones, and embrace the regions on both sides of the equator, between 30 deg. and 50 deg. of latitude. These zones contain, each, about 24,000,000 of square miles, or together 48,000,000, a little less than a quarter of the earth's surface.

They may also be called *Zones of Four Seasons*, since it is only in these regions that the distinctions of Spring, Summer, Autumn, and Winter are fully recognized. They are remarkable too, above all other sections of the earth, for frequent and perpetual variations of temperature, and might, on this account, be called *Zones of Variable Climate*.

These zones have a vegetation totally distinct from that of the three already described. In those, the plants continue to grow all the year, except so far as they may receive a check during the continuance of the dry season; in these, vegetation is regularly checked by the recurrence of frost.

These zones, with the exception of some interior elevated plains, in which the summer rains fail, enjoy a succession of showers, distributed throughout the whole year,—a circumstance very favorable to the growth of cultivated plants; though the bulk of the rain, either as rain, or under the form of snow, falls during the winter. The winds are very variable, though there is observed a general predominancy of westerly winds throughout the year, changing, in the northern zone, to north-west, north, and north-east during the winter; and to south-west and south, during summer. In the southern zone, these changes are, in the winter, to the south-west, south, and south-east; and, in the summer, to north, and north-west. In both zones, the tendency of the winds during winter, is from the poles; and during summer, from the equator. During the autumn and winter, these motions of the winds are much more violent than at other times. Terrible storms prevail at these seasons, which last for several days, beginning with the wind from the direction of the nearest pole, and travelling all round the compass, generally attended with much rain or snow, and spreading over a great extent of country. These storms are first felt in the part of their limit nearest the equator, whence they move in a curved path, towards the poles. The spring and summer are comparatively calm; and, in proportion to the calmness or windiness of the winter, it is warm or cold.

In the range of twenty degrees, which these zones embrace, there is, of course, a great variety of climate. The winter, as we proceed toward the poles, grows longer, at the expense of the spring and autumn, and much more severe; the summer is shortened, but, while it lasts, it has a degree of heat almost equal to that of the tropics. Towards the northern extremity of this zone, the distinction of spring and autumn almost disappears, the seasons dividing themselves into nine or ten months of winter and two or three of summer.

The northern of these two zones embraces Canada, the United States of America, Oregon, and the Northern provinces of Mexico; and, on the old continent, the countries bordering on the Mediterranean, including the northern coast of Africa and southern and central Europe, Asia Minor, northern Persia, northern India, northern China, Thibet, Tartary, and Japan. It is in this zone that man has made the greatest advances, and

that almost all the great events recorded in the world's history, have occurred. The southern of these zones is, comparatively speaking, very limited, and historically new and unimportant. It includes Chili, the southern half of Buenos Ayres, Patagonia, the very southern extremity of Africa, known as the Cape Colony, the southern and almost the only habitable portion of New Holland, and the islands of Van Dieman's Land and New Zealand. All these regions, Chili excepted, within the last fifty years, have been colonized, to a greater or less extent, by the English.

With respect to the southern of these two zones, it is to be observed, that the half of it nearest the pole is far colder than the corresponding half of the northern zone; and with respect to the northern zone itself, a very great difference is to be observed between that portion of it lying upon the western sides of the two continents, and that portion lying on their eastern sides. Hence the eastern and western shores of the Pacific and Atlantic, so far as they are included in this zone, enjoy very different climates; that of the two eastern and of the two western shores, corresponding to each other; and this difference extends half way or more across the continents. Thus the climates of Canada and the United States on the one hand, and of Tartary, northern China, Thibet, and northern Persia on the other, have a strong resemblance, being subject to very violent and sudden changes, and in winter to very severe degrees of cold. On the opposite sides of the continents, Oregon and Upper California correspond, in climate, to southern and central Europe, Asia Minor and the adjacent countries, and the northern coast of Africa; the winter, in all these regions, being much more mild, comparatively free from frost and snow, and far less subject to sudden and severe occurrences of cold. The reasons of this difference will more distinctly appear when we come to speak of winds.

6th and 7th. Lastly, we have two *Polar Zones*, or rather circles, embracing all the space about either pole, as low down as fifty degrees of latitude. These are, again, zones of two climates, the winter lasting nine or ten months, and the summer two or three, with the remarkable exception presently to be noted. The prevalent winds in these zones are from the westward, liable to variations very similar to those which prevail in the intermediate zones; but the nearer the poles are approached, the less there seems to be of atmospheric disturbance.

Of these two zones, the southern includes a few barren islands, and the as yet unexplored coast of what is supposed to be a southern continent. The northern zone includes the northern section of America, Greenland, Iceland, Spitsbergen, and Nova Zembla, northern Europe, and northern Asia. All these vast tracts, with the single exception of northern Europe, are hardly capable of cultivation, the ground remaining frozen during the greater part of the year. The eastern section of northern Europe, including the British isles, enjoys a mild and equable temperature, neither the heats of summer nor the cold of winter touching an extreme point. As we proceed westward to Holland, Denmark, Norway and Sweden, northern Germany and Russia, the cold and length of the winters constantly increase; but these countries remain capable of cultivation to a certain extent, almost or quite as far north as the Arctic circle. In the other parts of this zone, the case, as we have stated, is altogether different. It is a frozen, uninhabitable region. The reasons of the peculiar advantages enjoyed by northern Europe, will appear in what we are going to say about winds.

6. *Winds and Rains*.—The quantity of rain that falls in any place, is very greatly dependent upon the winds that blow over it. To make this apparent, it is necessary to state a few simple and well ascertained facts. The air is capable of dissolving and taking up a certain portion of water, and this process, called evaporation, is always going on, in all parts of the globe. The moisture that falls, in the form of rain and snow, is thus again elevated into the atmosphere, to be again precipitated, and so on, in endless succession. The hotter the air is, or the more rarefied it is, the greater quantity of water it is capable of taking up. This water is so thoroughly dissolved in the air, that though existing in it to a great amount, it is wholly imperceptible to the senses. When the air *feels* moist, it has already begun to part with its water, which thus becomes apparent to the touch and eye, in the form of mist, vapor, and at length of rain. Air, at any given temperature, is only capable of containing a certain quantity of water; and if it be saturated with water, or nearly so, and its temperature be suddenly diminished, it must give up a certain

portion of its water, which now becomes sensible to the touch or sight, or both. Thus the sudden cooling of the air, at the setting of the sun, causes dew to be formed, or, in winter, frost. If two equal portions of air, of different temperatures, each saturated with water, are mixed together, the compound is no longer capable of holding in solution all the water before contained in the separate portions of air, and a mist or rain is necessarily formed. Mist or rain can always be formed from air, by cooling it down to a certain point. That point, to which it is necessary to cool down any given portion of air to make it deposit moisture, is called its *dew point*.

It is necessary further to bear in mind, that the air is an elastic fluid, which expands rapidly with heat, and thus becomes lighter and tends to rise. It also expands, becomes lighter and tends to rise, by the removal of the superincumbent pressure of the weight of the air above it. The expansion of the air is attended with a rapid loss of temperature, the heat being absorbed and becoming latent. Its condensation as it were squeezes out the heat, and makes it sensible, and the same is the case with the moisture it contains. The atmosphere also always tends to preserve an equilibrium; that is, the least approach in any place towards a vacuum, causes all the circumjacent air to press in to supply the deficiency, the rush being greatest from that quarter where the air is most dense.

With these preliminary observations, let us now proceed to give a sketch of the causes and laws of winds and rains.

The sun at the vernal equinox, is vertical at the equator; by an apparent northern motion, in the course of three months it becomes vertical at the tropic of Cancer, then turns, and in another three months appears to move back to the equator. During these six months the region of greatest heat is the belt extending from the equator to the tropic of Cancer; and the region of greatest heat in any given month is that parallel of latitude over which the sun a few weeks before had been vertical,—for it takes some time for the effect of the sun's vertical rays to be fully felt. In the other six months the region of greatest heat is transferred to the other side of the equator. Thus during the whole year, there is a certain portion of the Torrid zone which is hottest, and this portion twice in the year is in the vicinity of the equator. The air over this belt, which may be considered to include several degrees of latitude, being heated more than any other air, tends in consequence to rise, and does rise, thus producing a rarefaction of the air over that belt. To supply the partial vacuum thus created, the air rushes in, both from the north and south. These currents meeting at the belt of greatest heat, counteract each other, and produce there a calm; but both north and south of this zone of calms, the motion of the two currents is strongly felt, and kept up throughout the whole year, thus producing those constant, steady tropical trade winds, of which we have already spoken. It may be asked, how does it happen that the trades blow from the eastward and not, on the one side, from the north, and, on the other, from the south. To answer this question, we must bear in mind, that the rapidity of the motion of any part of the earth's surface, is constantly accelerated as we approach the equator. A given point at the equator, moves through a thousand miles an hour; this rapidity of motion constantly diminishes towards the poles, where it amounts to nothing. If a body of air remain stationary over any given portion of the earth's surface, it presently acquires the same rotatory momentum with that surface. If now this portion of air be suddenly removed to the south, it will not at once acquire the additional rotatory momentum which prevails there, and in the mean time, objects on the earth's surface dashing against it, this air will appear to have a motion contrary to that of the earth, that is, a motion from the east towards the west. If on the other hand, this same portion of air were suddenly transferred northward, it would for a time, retain the excessive rotatory motion which it brought with it, and would consequently move over the surface from west to east.

But when two motions are combined, one from the north and another from the east, there results from the combination, a north-east motion, more north or more east, according as the northern or eastern motion is more rapid.

Thus, every movement of the atmosphere north of the equator which appears to us to come from the south-west, comes actually from the south, and every motion of the atmosphere which appears to us to come from the north-east, comes actually from the

north. South of the equator, every apparent south-east wind comes really from the south, and every apparent north-west wind, really from the north.

Thus we see how it is, that the cool air rushing from the direction of either pole, to supply the great vacuum constantly being produced within the tropics, appears north of the equator, as a north-east wind veering, as the northern motion diminishes, to the east; while south of the equator it appears a south-east wind, veering, as the southerly motion diminishes, also to the east.

When it happens, owing to the greater accumulation of heat north of the equator by reason of the greater mass of land there, that the south-east trades cross the equator as they do in the Atlantic and Indian oceans, the deficiency of westerly motion which they bring with them, diminishes as they move northward, and from south-easterly they change into southerly winds, and even sometimes to south-west winds.

As land becomes much more heated by the rays of the sun than deep water, and as the direction of surface winds is governed a good deal by the character of that surface, the trades often vary a good deal from their regular course, in the vicinity of lands. Thus on the west coast of Africa, calms prevail, the rarefaction of the atmosphere over that continent causing the air to move westward and northward from the Atlantic; thus exactly counteracting the trades. On the east coast of Africa, in the Red sea, the Arabian gulf, the bay of Bengal and the China sea, occur what are called the monsoons; the wind during half the year blowing from the north-east, and during the other half from the south-west. Owing to the position of Asia with respect to the equator, the point there of greatest heat and rarefaction is carried much further north than in the Pacific ocean; the south-east trade is thus carried far north of the equator, and moving toward the north pole, it necessarily becomes, for the reason already pointed out, a south-west wind.

While the atmosphere is thus moving from the direction of the poles towards the equator, the two vacuums exterior to the tropics, which thus tend to be produced, are filled up in summer mainly by the settling down of the equatorial air, cooled and rarefied by the height to which it has risen, and moving off to the north and south, (whither it is impelled by the laws of equilibrium towards the supply of the deficiencies there existing,) and as it settles towards the earth developing from the increased pressure to which it is subjected both heat and moisture. The trade winds are only a surface current; above them, as the motion of the clouds show, there is a constant rush of the air towards the poles; and there can be little doubt that in the mutual action of these two currents upon each other, the true explanation of the tropical rains will be found.

For the reason already stated, when a gap occurs beyond the trades, which admits it to drop down to the surface, this upper current of atmosphere flowing from the tropics, appears in the northern hemisphere, as a warm, moist south-west wind, or when it loses its polar motion, and has parted with its excess of heat and moisture, simply as a dry, clear west wind, which by the pressure upon it of a northern current, may become also a north-west wind; and hence it is that the changes of our winds are from south-west to west, north-west, north and north-east, with storms, clouds and rain, which do not disappear till the northern current is effectually stopped, a result indicated by a change of wind from the east by the south to south-west and west; any change to the west by the north, being most likely a temporary fluctuation not to be depended upon.

It is not however solely from this equatorial source, that the supply of atmosphere to the temperate zones is kept up. The cold and condensed atmosphere of the polar regions, struggles also to contribute its share. As the progress of the winter renders the polar atmosphere colder and more condensed, it rushes towards the tropics, at irregular intervals, with greater and greater force, under-shooting, as it were, the equatorial supply, and compelling it to move further and further north. These sudden jets of polar atmosphere, rushing with fury towards the tropics, create on either side of them, according to the law of the motion of fluids, two eddies or counter currents from the opposite direction. We may thus understand how it happens that at a place which feels the full sweep of one of these polar blasts, the thermometer will sink very low, while at the very same time, another place, at no very great distance, and under the same latitude, will enjoy a tropical breeze, and very moderate weather. These polar gales rushing furiously towards the

tropics, themselves disturb the equilibrium, by bringing thither an over supply of air, which again rebounds back, thus creating shifting circular currents of revolution throughout the temperate zones. Those places which happen to fall under that portion of these currents, which moves from the poles, will experience great cold, while those places falling under that portion of them which moves from the equator, will experience moderate weather. It is to this struggle of the polar atmosphere with the upper current of the equatorial atmosphere, to reimburse to the temperate regions, the atmosphere of which the trade winds are constantly draining them, and not less to the eddies and currents of revolution which the surface motion of the polar atmosphere, the course of which is very much governed by the particular configuration of the earth's surface, produces, that we are to ascribe those incessant and often sudden changes of temperature, and those frequent and irregular rains and showers so peculiar to the temperate zones. The polar atmosphere as it rushes towards the tropics, rapidly cools down the atmosphere with which it comes in contact, and always produces snows or rains. Hence in the temperate zones the predominancy of moisture in the winter, at which period the polar currents chiefly prevail.

The arrangement of the lands and seas, often gives to the atmospheric circles of revolution spoken of in the preceding paragraph, something of a stationary character. Throughout the whole extent of the continent of North America, there is a great valley running north and south, a little inclined to the east along the eastern foot of the Rocky mountains from the Arctic sea, up the valley of Mc Kenzie's river, and down the valley of the Mississippi, to the gulf of Mexico. The polar atmosphere during the winter, in constant successive gales, rushes furiously down this valley, producing what are known in the gulf of Mexico and the Caribbean sea, as *Northers*. The surplus of air thus forced into these regions, moves off through the north Atlantic, constituting that south-west wind, which is observed to be the prevailing wind of that ocean; and this south-west wind, blowing during the winter against the western coast of Europe, produces there that remarkable mildness of climate to which we have already referred. The great ocean current of the Gulf Stream constantly carrying off, in the same direction, a supply of warm water, tends to the same result; and this Gulf Stream is itself occasioned by the water being heaped up in the gulf of Mexico by the constant action of the trade winds. Striving to recover its level, the surplus water flows out between Cuba and Florida, where the effect of the trade wind is least constant and powerful, and thence north-easterly along the coast of North America. Thus we see that the physical structure of North America exercises a most important and perpetual influence upon the climate of Europe. As the Arctic sea (to the north of Europe) is constantly supplied with warm water from the tropical regions, it remains unfrozen, and even when the north wind blows it never brings with it, from that quarter, that excessive degree of cold which the same wind produces in central North America and central and eastern Asia, where it becomes cooled down to a very low point by its long journey over the frozen northern regions of those two continents.

It is observed that mountainous regions are far more rainy than level plains. The lofty mountain peaks becoming very much cooled, cool the air that passes over them, and compel it to part with a portion of its moisture. In this way constant showers are produced. Indeed it is only in the neighborhood of high mountains, that in what we have called the tropical zones, rains ever occur, except during the regular rainy seasons; and hence the neighborhood of mountains, is, in those zones, essential to cultivation.

VIII. GEOLOGICAL STRUCTURE OF THE EARTH.

Within the last fifty years, the science of Geology, that is, the science of the structure of the earth, and the investigation of the progressive changes by which its existing surface has, through countless ages, been moulded into its present form, has been pursued with great zeal and ardor. Instead of sitting down, content to make theories or form probable guesses in their closets, the modern geologists have carefully examined very large portions of the earth's surface; and no sooner has any theory been proposed than it has been immediately subjected to the severe test of fact and observation. The consequence has been that this science has made very remarkable progress, and that it still advances every day.

Several points have been already established, very contrary to the prevailing belief of mankind, by evidence too powerful to be resisted by any man of science. One of these points is, that although the existence of man upon the globe, and of the present species of plants and animals, appears to be comparatively recent, yet that the globe itself has existed for a vast length of ages, during which its surface has undergone the most astonishing revolutions, and has been successively inhabited by races of plants and animals long since extinct, and bearing only a resemblance more and more distant to existing species. Imbedded in the rocks, clay, mud, sand and gravel, which form the present surface of the earth, are the remains of those extinct species, preserved in a most remarkable manner, and furnishing a regular series commencing in the deeper stratified rocks, with the more simple forms of marine plants and animals, and gradually progressing till in the most recent deposits, the more perfect and complicated forms are arrived at. There is a most remarkable identity in the shells and other animal remains found in rocks similarly situated in the geological series, in whatever part of the earth they exist; and it is by the identity of these remains, that rocks in different parts of the earth, presenting very little resemblance in external aspect, are identified as belonging to the same geological formation.

Another conclusion in which all geologists agree, is, that the existing continents were at some distant periods submerged under the sea, out of which they have been raised at different times by some internal force, generally acting with greatest power and effect upon their central portions. This explains the physical structure of the continents, and of all large islands, which rise from the sea on all sides towards an interior elevated table land, often crowned with ridges of mountains. The mountains themselves, wherever found, are but indications of an excessive action of the internal force at that point, causing the mountains to rise and bulge out above the surface. It is also by the action of this internal force, that we must explain the inclined and broken condition in which the strata composing the earth's surface, are generally found; the broken upturned edges of these strata, more or less inclined, often forming the existing surface, thus revealing to the curiosity and examination of the geologist, miles and miles in perpendicular depth of the crust of the earth, of which he could in no other way have known any thing. It is by observing the superposition of the strata thus displayed, which always follows a certain uniform order, that the geologists have determined the relative geological age of the different stratified rocks, ascribing to each a greater antiquity the deeper it lies.

The horizontal line of contact of the surface of the ocean with the solid land gives the contour which we see on maps, the form of which depends entirely upon the degree of elevation to which the land has attained, since on many points, it would be entirely changed by a slight elevation or depression. On some coasts, a few feet more or less in the depth of the water, would diminish or increase the extent of land by many miles. Suppose the American continent to be lowered 1000 feet only, and it would be deprived of almost the whole of its really valuable land, reduced in fact to a mere spine as compared with its existing form. Permanence of the contours of the lands, supposes indeed a stability of their whole mass, which seems not yet to have been entirely attained, and which we know certainly did not exist in earlier geological epochs, even those the nearest to our own. The shape of the masses of land during those epochs, was so different from what it is at present, that we should hardly recognize them, and we

know by comparing the fossils of the different epochs, that great changes in climate and in organized beings were the consequences of this change of form.

What is the force by which the continents have thus been upheaved from the bottom of the sea? Upon this point geologists are not yet perfectly agreed; yet the opinion is fast becoming very general among them, that the central portion of the globe is in a heated and molten state; that the apparently solid earth upon which we tread is but a thin crust of a few miles, enclosing within it a molten mass; and that it has been the explosive struggles of this melted interior which have repeatedly broken up the earth's crust, dislocated the once horizontal strata, and upheaved the lands from the bosom of the sea.

However extraordinary this opinion may appear to those who have not considered the subject, though it be as abhorrent to the prejudices and common notions of mankind as the doctrine of the astronomers respecting the daily rotation and annual revolution of the globe, yet it is supported by some very strong arguments. In the first place, the existence of volcanoes shows that there is some melted matter somewhere, and the long chains of these volcanoes evidently connected with each other, and operated upon by some common cause, furnish evidence that these reservoirs of melted matter are not limited and local, but of great extent. The phenomena of earthquakes, which evidently are closely connected with volcanoes, and which affect by the same shock or series of shocks, very extensive portions of the earth's surface, passing sometimes under the whole breadth of the ocean from one continent to another, can only arise from some great internal force not local and limited, but general.

Again, astronomers have calculated from the observed power of the earth's attraction, that the whole mass of the globe, taken together, has a density and gravity four times and a half as great as that of water at the earth's surface. But if the internal contents of the earth were not subject to a very expansive internal power, according to the well established laws of attraction by which the force of gravity increases as the square of the distance diminishes, the internal parts of the earth ought mutually to attract and consolidate each other in such a ratio that the total gravity of the earth, suppose it of the same size as now, would be far greater than it now is. What prevents the operation of this law, unless it be the well known expansive power of heat acting upon the molten internal contents of the globe to counteract the force of gravity?

It is a fact well established by experiments made in many deep mines, that after the surface of the earth has been so far penetrated, that the effects of external variations of temperature are no longer felt, thenceforward as the perforation grows deeper the atmosphere becomes warmer, and that too in the very rapid ratio of one degree of Fahrenheit for every 101 feet of descent. Hence in all Artesian wells, carried to a great depth, the water comes up warmer and warmer in proportion as the well is carried deeper, and thus is explained the existence of warm and hot springs, the water in proportion to its heat rising from a greater depth.

But if existing phenomena happening every day before our eyes, tend to prove the internal heat of the earth, the proofs of this fact, derived from geology, are much greater. The older organic remains, whether animal or vegetable, are entirely of such a character that they only could have existed in a very warm climate. They bear analogy only to those plants and animals which are now found in the hottest regions of the earth. It is only in the most recent deposits that we find remains analogous to the existing inhabitants of the colder and more temperate regions.

Ancient remains of plants and animals, such as gigantic ferns and palms, and immense herbivorous creatures far larger than the largest existing animals, and of course requiring a greater supply of vegetable food, are found in all latitudes of the globe, as well under the Arctic circle as near the equator. Hence it is concluded that the earth must, in former ages, have enjoyed a uniform temperature exceeding that now felt in the tropics. But it is impossible from astronomical considerations that such a uniform heat could ever have been derived from the sun; it is therefore concluded that the internal heat of the earth in former ages, before the earth had cooled down to its present state, must have been such as to furnish all parts of the globe with a tropical climate independently of the heat of the sun.

Geologists, in their investigations, find in different parts of the earth, immense extinct volcanic craters, far vaster than any now in action; they also find evidences of the operation of earthquakes far more tremendous than any of which history furnishes the record. They find immense masses of unstratified rocks which bear the plainest marks of having once been in a state of fusion, forced up through the broken edges of strata, now greatly inclined, and often bent, twisted and much altered by fire, but which bear plain marks of having been originally formed by a slow deposit from water gradually settling down exactly like the deposits now forming in the sea near the mouths of rivers and at the bottom of every lake.

From all these considerations, and many others, which our space does not allow us to particularize, the great body of modern geologists have been led to conclude, that the earth once existed in the form of a melted fiery mass in a complete state of fusion. It is to be observed that the figure of the earth bulging out at the equator and depressed at the poles, is precisely the shape which mathematical calculations show that such a fluid mass, subject to the rotation and revolution of the earth, would necessarily assume.

The earth, in the melted fluid state above supposed, would of course have no water upon it; it would be expanded to a size very much greater than at present, and would have about it a vast atmosphere of vapor and gases. And here we may observe, that one of the chief constituent elements of the earth, which has been calculated to compose more than half of its entire volume, we mean oxygen gas, exists in its uncombined state in the form of a transparent invisible air. Several other of the principal elements of which the globe is composed, such as hydrogen and nitrogen, are also gases.

According to the established laws of the radiation of heat, this vast melted fluid mass is supposed to have given off its heat for ages, till at length a scum-like crust began to be deposited, floating upon the interior melted nucleus, with a vast atmosphere (many things now solid or fluid, being then gaseous) superincumbent upon it. After such a crust had been formed to a considerable extent, we can imagine several causes which might occasion it to be repeatedly broken up. As the globe continued to cool, new chemical alterations would be constantly brought into operation; some elements inclosed within the crust might be forcibly attracted towards other elements exterior to it, and the crust might be discolocated by the rushing together of these two elements. Or, if we suppose the exterior crust so far cooled down that water began to be deposited, this water filtrating through the crust, reaching the heat below and converted into steam, might produce tremendous explosions. We are not to suppose that the original crust of the earth was composed of the hardened materials of our present rocks. These have evidently been concentrated and solidified under an immense pressure. The modern lavas cooling without pressure upon them, though composed of the same materials with the ancient igneous rocks, are of a very porous character; the pumice stones even float upon water.

The crust of the earth thus frequently disturbed, still continued, we may suppose, by the process of cooling, to grow thicker and thicker, and the interior contents of the earth by the continual exterior pressure, to grow more and more solid; and this process may be supposed to have gone on, till the deposit of water from the atmosphere became so great, that seas began to be formed. In those seas, the stratified rocks began to be deposited; and then too organic life is supposed by the geologists, to have first made its appearance.

It here becomes necessary to state that the first great division of rocks (under which term geologists include not only rocks commonly so called, but all the solid substances of the earth, clay, sand, gravel, marl, etc.,) is into STRATIFIED, and UNSTRATIFIED. Various species of both these great classes of rocks exist, of the most various ages, from those formed yesterday, to those formed uncounted centuries ago. The unstratified rocks, called also *igneous*, from the evident agency of fire or heat in their production, including the *granites*, *porphyries*, *syenites*, *green stones*, *basalts* and *lavas*, form in general the more elevated parts of the earth's surface. They have all evidently once been in the melted state, and have cooled under a greater or less degree of pressure: from which circumstance it has been proposed to distinguish the unstratified rocks into two classes, by the name of *Plutonic* and *Volcanic*, the latter to include those which have cooled above or

between the stratified rocks. They all present the crystalline structure, the crystals in some being very large and distinct, and in others, especially the volcanic rocks, so small as to be hardly distinguishable. Each of these various rocks is composed of three or four distinct minerals, each of which minerals contains several chemical elements. The minerals which go to make up the unstratified rocks, are *silex* (flint or quartz) *feldspar*, *mica*, *hornblende*, *augite* and *oxide of iron*. *Silex* is composed of water, (a combination of the two gases, hydrogen and oxygen,) and of an earth called silica, which is itself composed of oxygen united to an inflammable metallic base called silicium. Pure *silex* is transparent or translucent, and its lustre is highly vitreous. The transparent variety of which the common form is that of six sided pyramids, is called *rock crystal*. When purple, it is *amethyst*. When faint red, it is *rose quartz*. When its color is dark brown or gray, with conchoidal fracture, it is *flint*. In white tuberos masses of a resinous lustre, and conchoidal fracture, it is *opal*, and if a lively play of colors is added, it is known as *precious opal*. When colored red or brown, by a small per centage of the oxide of iron, it is called *jasper*. When transparent but massive and light-colored, it is called *chalcedony*, or if flesh-colored, *cornelian*. When composed of layers of chalcedony of different colors, it is called *agate*. Reduced to powder, *silex* becomes sand, and forms in this state, a large part of the surface of the earth. *Feldspar* is composed of water, *silex*, and alumina, and a small portion of potassa, which latter earths are formed like *silex*, from oxygen, united to inflammable metallic bases. It resembles quartz, but is not as hard, cleaves more readily, and is not generally transparent. Its lustre is feebly vitreous, inclining to pearly. Its color is sometimes green, but generally dull white, often inclined to red or flesh color. *Feldspar* reduced to powder forms beds of mud or clay. *Hornblende* and *augite*, which seem to be the same mineral, formed under different circumstances, and which differ only in their form of crystallization, contain besides *silex* and alumina a large quantity of magnesia, an earth composed like the others, of a metallic base united to oxygen. Its color is generally some shade of green. When light green, it is *actinolite*; when white, *tranolite*. When composed of flexible fibres, it is *asbestos*; and if the fibres have also a silken lustre, *amianthus*. *Mica*, known by its capacity of division into exceedingly thin, transparent elastic plates, generally colorless, but sometimes green, smoky, or black, contains besides *silex* and alumina, a portion of lime, potash and soda, elements essential to the growth of plants. These earths also are composed of oxygen united to metallic bases. All the unstratified rocks contain a greater or less portion of iron, in the form of an oxide, to which in general they owe their color, and which in proportion as it predominates, gives them a tendency wherever they are exposed to the air, to crumble and waste away. From rocks thus crumbled, has been formed that gravel so copiously distributed over the surface of the earth.

The stratified rocks, except those which have an animal or vegetable origin, are formed from the unstratified rocks, reduced to the state of pebbles, gravel, sand or mud, or all combined, and in that state carried to the sea, or some lake, and there deposited, and hardened and agglutinated probably by heat.

These stratified rocks are divided into two classes very remarkably distinct from each other. In the one class, which underlies the other, and which forms the commencement of the geological series, there are no organic remains to be found. Though their stratified texture is sufficiently obvious, yet they have a strongly crystalline structure, (greatly resembling that of the granites, porphyries, and green stones, into which in some places they may be observed imperceptibly to pass), and evidently resulting from their exposure to a powerful heat under great pressure, sufficient to have obliterated all traces of any organic remains which they might once have contained. From this circumstance, these rocks have been called *metamorphic*, having been evidently *changed* by heat. They consist principally of vast beds of *gneiss*, *mica slate* and *clay slate*, including occasionally layers of *carbonate of lime* in that crystallized state in which it is known as *marble*; of *carbonate of iron*, of *talk*, and of *serpentine* and of *quartz* rock.

Whence came this heat? The crust of the earth, wherever these metamorphic rocks abound, is penetrated at frequent intervals from beneath by ridges or dikes of unstratified rocks, from broad mountain chains of granite and porphyry to narrow seams of quartz and basalt of less than an inch in thickness. These ridges and dikes have evidently

been forced up, in a melted state, through breaches or cracks of the stratified rocks, and the effect of their heat in twisting, melting, and variously altering the stratified rocks through which they rise, is often very obvious. This, however, will not suffice to account for the present condition of the metamorphic rocks, which evidently owe their texture to the application of some baking heat, uniform, and diffused through their whole extent.

The following illustration will give an idea of the process by which geologists suppose these metamorphic rocks to have become exposed to the heat which has changed them. If a bar of iron be placed with one end in a furnace, the other end being exposed to the air, the bar will become heated, in regular gradation, from the end in the fire to the end out of it. At first, the end out of the fire will grow hotter and hotter; but presently it will attain to that point at which the heat passes off just as fast as it is received; and at that point the temperature of the exposed end will remain stationary. If now we cover the exposed part of the bar with a layer of clay, which, owing to its non-conducting power, diminishes the radiation, the end out of the furnace will grow hotter; if we put on another coating of clay, it will grow hotter still; and in this way, by repeated coatings, we may raise the heat of the end out of the fire to a degree almost equal to that of the end in it. In the same way, suppose the earth internally hot: the constant radiation might still prevent the crust on the outside, from feeling that heat to any great degree; and layers of mud might be successively deposited at the bottom of the ocean; but as these layers grew thicker and thicker, the lower ones would no longer be able to throw off their derived heat by radiation as formerly; and that heat would continue to accumulate till they might be brought, almost or quite, to a melted state. It is by this process of derivation that geologists suppose the metamorphic rocks to have been heated and partially melted. Long afterwards, raised again by subsequent convulsions, from the depths in which they were buried, to the surface, they cooled, and in cooling took on a partially crystallized form.

Those stratified rocks containing no fossils, it has been proposed by some geologists to include along with the unstratified rocks which are all also without fossils, under the common name of *Azoic rocks*, that is, rocks including no evidences of contemporary life. It is in connection with these Azoic rocks that a large proportion of the metallic ores are found. Sometimes they appear to be deposited in immense masses, which would seem to have been poured forth in a melted state, or else to be beds formed of transported fragments of the original ore. Such seems to have been the case with the specular and magnetic oxides of iron (those ores from which iron of the best quality is made) as exhibited in the celebrated mines of Russia and Sweden, and the Adirondock iron mines of northern New York, and still more remarkably in the famous iron mountain of Missouri, and in the recently discovered valuable deposits of iron on the south shore of Lake Superior, between Carp river and the Menemomie. But in the case of the more precious metals, the ore is generally found in a vein, upon the sides of which, subsequently to the original formation of the fissure, it appears to have crystallized in conjunction with other minerals. Such are the famous veins of gold-bearing quartz in California, Australia, and along the east slope of the Alleghanies, and also the veins of silver ore in North and South America, found in the porphyritic rocks on the slopes of the Andes.

The other class of stratified rocks is that denominated the *Fossiliferous*, because in these are found those various fossils or organic remains, so interesting to the geologist and so important to his science.

These fossiliferous rocks are again subdivided into *Palæozoic*, *Secondary*, and *Tertiary*. The Palæozoic and Secondary rocks exist in wide extended masses, and would appear to have been formed, some at the bottom of deep oceans, and others in vast seas, broad inlets, or swampy morasses. The Tertiary rocks are, generally speaking, found in much smaller extent, and appear to have been formed in lakes or estuaries alternately filled with salt and fresh water, or on the shores of existing continents.

1. The older Palæozoic rocks, called by some geologists *Transition rocks*, by others the *Grauwacke* series, and by others *Silurian* rocks, consist of immense beds of clay, slate, pudding-stone, and other coarse conglomerates, sandstones and limestones. It is here that we discover the first faint traces of organic existence, vegetable and animal, but chiefly the latter, in the shape of corals and other creatures of that class, with respect to some of which

it is difficult to say, whether they belong to the animal or vegetable creation; for these two great divisions of organic existence, however distinct and separate in their more perfect forms, seem at their commencement to be almost confounded with each other. There are, however, even in the oldest fossiliferous rocks, extensive remains of animals of a higher class, belonging to the order called Molusca; and even some fishes. (For an account of the classification of animals, see Article VIII.)

Some geologists reckon that part of the Silurian system immediately above the metamorphic rocks, consisting principally of black, greenish, and purple slates of great thickness, but containing beds of granular quartz and limestone, sometimes white and crystalline, but more generally black or clouded, as another and separate system by itself. Others consider these rocks as that part of the Silurian system which has been most disturbed by subterranean fires and most altered by proximity to igneous rocks. This system comes to the surface in western New England and eastern New York, and on the south shore of Lake Superior, etc., and in the western part of England and in Wales, and has been called in America the *Taconic*, and in England the *Cambrian system*. This system probably extends over a much greater space of the earth's surface than any of the systems of rocks of more recent origin. It has been carefully studied in the west of England, where, as well as in the north and east of Europe, it occupies extensive tracts. It includes a large part of the state of New York, in which district it has been carefully examined, and has been found extending westward beyond Lake Superior, and occupying a vast tract of country west of the Alleghenies, from Canada to Alabama. It probably forms, also, the eastern slope of the Rocky Mountains. The New-York geologists have divided this system, as it appears in that State, into four principal divisions, each containing several beds. The lowest and the oldest, called the *Champlain division*, corresponding to the English *Upper Cambrian Rocks*, commences with a quartzose sandstone, known as the Potsdam sandstone, which in its extension westward forms the south shore of Lake Superior, including the famous Pictured Rocks, and containing, in connection with trap, the rich copper veins of that region. Higher up in this division is a very thick argillaceous deposit, the Utica slate (Llandilo Flags of the English) and Hudson-river group. The *Ontario division* (corresponding to the *Caradoc sandstone* of England) commences with a mass of sandstone, above which is the Clinton group, consisting of shales and sandstones and including a fossiliferous argillaceous iron ore, coextensive with the group (at least in America) and very extensively worked in different States. At the top of this division is the Niagara group, commencing with a mass of shale, but presently becoming calcareous and terminating in a fine compact limestone, harder than the shales above or below, and better fitted to withstand the action of denuding agents. It accordingly presents bold descents wherever it comes out on the surface, and produces waterfalls wherever streams cross it. The falls of Niagara and those of the Genesee are formed by this rock. In its extension westward, it becomes the lead-bearing rock of Missouri, Iowa, and Wisconsin. The next highest, or *Hilderburg division*, corresponding to the *Wenlock Rocks* of the British geologists, is a succession of highly fossiliferous limestones with the intervention of only occasional beds of grits and shales. The lowest bed of this division is the Oneida salt group, the water obtained from which, in New York, furnishes by evaporation immense quantities of salt. The *Erie division*, corresponding to the *Upper and Lower Ludlow Rocks* of England, consists of a thick mass of shales and sandstones. The entire thickness of this Silurian system, commencing with the Potsdam sandstone, is, when well developed, not less than 20,000 feet; but in many places some of the beds, and even whole divisions, are wanting, while others thin out, in their extension from New York westward.

2. Next succeeds the *Old Red Sandstone* series of rocks, called also the *Devonian system*, which besides a series of shells peculiar to itself, abounds with skeletons of immense fishes of the most singular forms, covered with plates of bone faced externally with enamel, the jaws solid bone, not covered with integuments, while the internal skeleton was not bony but cartilaginous.

This formation consists almost entirely of a sandstone of a red color, admitting however of division into three parts, though with different characters in different places. The lowest is a thin bedded argillaceous sandstone of fine materials and easily splitting into

thin sheets, from which circumstance it has been called *tilestone*. The middle portion is composed of nodules or concretions of limestone imbedded in a paste of red sand and shale, called by English geologists *cornstone*. Though very partially developed in some regions, it is yet a very permanent member of the system. The highest member is a mass of red sandstone often passing into a coarse conglomerate. In England this formation occupies a band of several miles in width, extending from the borders of Wales north through Scotland to the Orkney's, and not less than ten thousand feet thick. In the United States it forms the Catskill mountains in New York, being in fact included as an upper member of the Erie group, and extends south and west so as to underlie the coal fields of Pennsylvania and Virginia, but nowhere with an apparent thickness of more than 3000 feet.

3. Above this comes the *carboniferous system*, of which the lowest member is the *carboniferous* or *mountain limestone*, composed of carbonate of lime (a compound of oxygen, carbon, and the metallic base of lime) compact and dark, from 600 to a 1000 feet thick, and containing an immense quantity of shells, though sometimes it loses the character of limestone and becomes a sandstone or conglomerate. Frequently it appears to be composed almost wholly of shells and corals, and must have been slowly formed, in an immense series of ages, by the gradual deposit of these shells at the bottom of the sea. The shells composing immense masses of this rock are sometimes so minute as only to be distinguishable by a microscope. The lime and carbon so abundant in these rocks, distinguish them in a remarkable manner from the older formations. It contains the ore of lead in considerable abundance, being their chief depository in England, and forming in our Western States the upper portion of our lead-bearing deposits. Above this limestone comes the *millstone grit*, generally drab colored, sometimes red, often as thick as the limestone, but with few fossils, and these mostly vegetable. It is generally coarse grained and often passes into a conglomerate. Above the millstone grit come the *coal measures*, composed of a vast number of beds of shale, or indurated clay and sandstone, alternating with layers of coal and iron stone, and about 3000 feet thick. This coal, which consists of several beds distributed through the measures, is almost wholly composed of the remains of immense palms, ferns, and other tropical plants, of which the traces now first become abundant, and which seem to have grown in immense marshes, flooded from time to time by the sea, in which the intervening beds of shale and sandstone were deposited. These beds of vegetable remains, sometimes a few inches, sometimes several feet thick, a few as many as 60, are supposed to have been afterwards covered by other deposits, and carbonated by the propagation of the internal heat. The anthracite coal appears to have been buried to a greater depth and subjected to a greater heat and pressure than the bituminous. Brought to the surface again, by subsequent convulsions, the coal now crops out in various places, and sometimes, as among the Alleghanies, forms the tops of mountains, having been lifted up bodily in great detached masses, by the rise of those mountains from beneath it. The carboniferous group is also distinguished by immense skeletons of fishes, even exceeding those of the old red sandstone. Brine springs, as those for instance of the valley of the Kenhawa, are often found in the carboniferous system strong enough to be used in the manufacture of salt, but they are not peculiar to it, being found equally in older and newer rocks. The iron stone occurs sometimes in nodulous concretions, often round some organic nucleus, or it is an argillaceous ore, having a slaty structure. In either case it consists of subordinate beds in the shale. This ore is extensively worked especially in England, but the iron is of an inferior quality. There are three principal varieties of coal. The common bituminous, containing 40 per cent of bitumen with some sulphur, kindles easily, but emits much smoke, and cakes in burning; the cannel, containing 20 per cent of bitumen, without sulphur, kindles easily without much smoke, but does not cake; the anthracite, containing scarcely any bitumen or sulphur, kindles with difficulty, emits but little smoke or flame, but burns with intense heat.

Though the coal is generally confined to the uppermost of the three great divisions of the carboniferous system, nevertheless beds of it sometimes alternate with beds of the millstone grit. This is especially the case in the north of England and in Scotland, and to a considerable extent in the United States. Sometimes beds of coal are inter-

posed even in the carboniferous limestone, so that the distinction into three divisions disappears, the whole system becoming coal measures. Where coal is quarried in large quantities, a shaft is sunk through the overlying strata to the coal beds along which the digging is carried, pillars of coal being left to support the roof, the coal dug out being raised to the surface, and the mines kept free of water by steam power. This is the case in England, where the coal generally lies at a great depth, but over a large part of the coal fields of the United States, which are very extensive west of the Alleghanies, it has not yet become necessary to sink shafts; the coal cropping out from hill sides, and it being found more economical to strip off the outer cover than to work a subterranean gallery.

The carboniferous system exists more or less abundantly all over the earth. It occurs in almost all the countries of Europe, but especially in Great Britain. The largest deposits known are however in the United States. A great coal field some 60,000 square miles in extent covers western Pennsylvania, north-western Virginia and south-eastern Ohio. There is another great coal field still larger probably, but the limits of which are not yet accurately known, stretching across Illinois from Kentucky into Michigan and Iowa.

The fossils of the coal measures are mostly vegetable, but are found chiefly, not in the coal itself, but in the strata above or below it. One called the *stigmæria*, is found in the lower shales very abundantly, and to the exclusion of almost every other form. It consists of a large dome-shaped mass, often four feet in diameter, with large branches or roots spreading off horizontally to a distance of twenty feet. Petrified tree ferns have occasionally been found apparently a mere continuation of the *stigmæria*, which, from this circumstance, have been supposed to be the roots of the immense tree ferns, the leaves of which so abound in the upper shales. These tree ferns appear to have attained a height of 50 or 60 feet, and a diameter of four feet. They have received the name of *Sigillaria*, in consequence of the seal like impressions with which the surface is covered, and which are the scars left where the fronds or leaves had fallen off. These fern leaves of various species are the most abundant fossils of the system. The *Lepidodendron* (tree covered with scales) most nearly resembled in general appearance our present forest trees. Specimens are found four feet in diameter and seventy feet high. In its botanical character it combined several of the characteristics of the trailing club mosses and of the Norfolk Island pine. The *Calamite*, another of these fossils, was a plant resembling in its pointed and striated surface the *equisetum* (horse tail rush), but of the diameter sometimes of a foot.

The carboniferous system closes the series of rocks denominated Palæozoic, or those of the times of ancient life, and to them succeeds the Secondary, divided into the *New Red Sandstone*, the *Oolitic*, and the *Chalk*, and consisting in the whole of about 30 distinct groups, each with its peculiar fossils.

1. The lower division of the new red sandstone, called the *Permian system*, consists of a thick body of sandstones generally red, with occasional alternations of shelly argillaceous beds, succeeded by a series of magnesian limestones, often, as in Germany, containing rich veins of copper. The upper division of the new red sandstone called the *Triassic system*, is made up of red conglomerate, of a limestone called, from its composition, by the German name of *Muschelkalk*, (shelly limestone,) and a series of variegated marls and sandstones. In England it abounds in salt springs, salt beds and beds of gypsum; but these minerals are by no means peculiar to this formation.

The Permian portion of this system contains impressions of fishes of that more ancient family of which the upper lobe of the tail was the larger, the spine continuing into it. Fishes with the lobes of the tail equal, first made their appearance in the Triassic division. The remains of birds and of Saurians or lizard-like animals also begin to be found here. On the whole, these rocks contain very few fossils, but they have preserved with remarkable distinctness the impression made upon them countless ages ago, when they existed in the shape of soft sand or mud, as the beach or shore of some expanse of water. The strata of this formation are often covered with ripple marks, with sun cracks occasioned by contraction while drying, or with depressions produced by rain-drops, the pits being sometimes so perfect as to show the direction in which the rain fell — so similar to those produced at the present day by similar causes as to leave no

doubt as to their origin. The tracks of animals are also well preserved, some of them produced by reptiles, and some probably by marsupial animals intermediate, as it were, between reptiles and the higher order of mammalia, but most of them by birds. The tracks of more than thirty different species of birds, some of them of gigantic size, have been distinguished by Professor Hitchcock in the sandstones of the Connecticut valley. Fishes occasionally appear in the Silurian, and very abundantly in the Devonian rocks, but it is in the New Red Sandstone that traces and remains of birds, reptiles and marsupial animals are first found.

All the members of this system are well developed on the continent of Europe, and in England all parts of it except the Muschelkalk. The Triassic, or upper portion of it occurs in North America in detached portions, probably as part of a continuous formation, appearing in Nova Scotia, the eastern part of Maine, the valley of the Connecticut, and from New Jersey south through Pennsylvania, Maryland, and to South Carolina. Like many other of the sandstones, it furnishes good building materials, but not so durable as some others.

2. The *Oolitic system* which succeeds the New Red Sandstone, is made up of three principal subdivisions. The *Lias* consists of a series of fissile beds of argillaceous limestones, of marls and of clays, the two latter, unlike all the lower strata, not hardened into rocks. The *oolite* consists of alternations of clay, sandstones and limestone, some of the limestones having an oolitic structure, composed, that is, as if of little eggs or globes the size of a pea,—a circumstance which has given its name to the whole series, though this characteristic is by no means found in all of its parts, nor is it exclusively confined to this formation. The *coral rag*, which forms the central part of the oolite, is principally a mass of corals and broken shells. The third and highest number of the oolitic system is the *Wealden*, consisting of calcareous beds, followed by sandstone and terminated by the Wealden clay.

This system is highly calcareous, furnishing valuable building materials, and is distinguished by the amount and variety of its organic remains. Corals and molusks occur in great abundance. The upper oolite in the south of England contains stumps and trunks of coniferous trees of large growth, and of other plants rooted in a black carbonaceous layer, evidently the soil in which they grew—a species of vegetation intermediate between that of the coal measures and that which now exists. But what especially characterizes this system are abundant remains of saurian reptiles of extraordinary size and shape. The *Ichthyosaurus* and the *Plesiosaurus* were marine animals intermediate between a crocodile and a whale, and not less than 30 or 40 feet long. The *Pterodactyle* was a reptile with wings like a bat, and of the size of the largest eagle. The *Iguanodon* was a land lizard 70 feet long. This formation is well developed in England, and except the Wealden, on the continent of Europe. Its counterpart in this country is to be found in the valley of the James River near Richmond, a highly arenaceous rock 1000 feet thick and containing a bed of coal 40 feet thick, and extending, with some similar deposits of coal, as far south as Alabama.

3. The upper system of the Secondary rocks is known as the *Cretaceous formation*, or the *Chalk*. The lower part consists of *green-sand* interstratified with beds of clay. The intermediate portion is a mixture of argillaceous green-sand and impure *chalk*. The upper portion is composed of chalk which is a friable and nearly pure carbonate of lime, separated at intervals of from three to six feet by layers of flint, either in the form of nodules or pebbles, or of continuous strata. These characteristics, however, of the chalk formation as it exists in the south of England, are but partially recognized elsewhere. Thus on the slopes of the Alps, the equivalent of the English green-sand seems to be a series of chrySTALLINE limestones, long regarded as primitive, and known as the *Neocomian system*, while the American green-sand found in New Jersey, etc., seems to be the geological equivalent of the white chalk of England. The fossils of the chalk are very different from those of the oolite, seeming to show that while the latter was formed in estuaries and shallow waters, the former was deposited in deep seas. Microscopic shells are often so abundant as to constitute a large proportion of the mass. Zoophytes, such as corals, sponges and star-fish, are very numerous; also molusks, including cephalapoda, the highest family of that order,—but vertebrated animals no longer appear.

The chalk and green-sand are largely developed in England, and the counterparts of the same system are extensively found in southern Europe flanking the mountain ranges and extending into Asia. In this country the system commences with the green-sand and soft limestones of New Jersey, and following the eastern slope of the Alleghanies to its southern termination, bends round in a north-west direction, and is continued into Missouri.

In the Tertiary deposits, we discover the commencement of a new order of things, gradually approaching, more and more, to that which now exists. It is evident that some vast change in the condition of the earth must have occurred between the deposition of the uppermost beds of the secondary strata, and the commencement of the Tertiary; for though the Tertiary strata abound in fossil remains, they do not contain one single species or genus identical with those contained in the Palæozoic and Secondary strata. These strata, the groups of which are much less distinguishable from each other, either by mineral character or peculiar fossils, than those of the older formations, consist of a great variety of beds of clay, sand and soft limestones. As they seldom overlap each other, so as to indicate their respective ages, they have been arranged into four classes, according as they contain, among the marine shells deposited with them, a less or a greater proportion of such as belong to families now existing. The first division, called *Eocene*, (a name indicating the dawn of the existing state of things,) contains only four per cent of existing species. The second, called *Miocene*, includes those strata which possess among their fossil shells some ten per cent of existing shells. The third, the *Pleocene*, has, among its fossils, forty per cent of existing species; and the fourth, the *Pleistocene*, approaches towards an exact resemblance, in its fossil shells, to those species which now exist.

To this period belong those great beds of gravel with which the surface of many northern countries is overspread, and which appear to have been brought from a great distance by a succession of tremendous floods. But this is a subject still involved in very great obscurity. Those deposits called *Drift*, are found in America as far south as Pennsylvania and the Ohio river, and extending east and west from Nova Scotia to the Rocky mountains. They are found in Europe as far south as Germany and Poland, and extending from the Atlantic to the Ural mountains. Also in the vicinity of the Alps and other mountains, and in the colder parts of South America. This drift consists of irregular accumulations of earth and gravel of different degrees of fineness, but containing masses of stone called boulders, often of many tons weight. From the fact that rocks of the same lithological character are found in strata at a distance often of one or two hundred miles north, and from the polished, striated and grooved surface of the intervening rocks, the conclusion is that these boulders have been washed along from that distance, leaving these marks behind and accumulating where they are now found. In the valleys of the drift regions are found deposited beds of blue and gray clay fit for bricks and coarse pottery, also beds of sand, sometimes evenly spread, but often accumulated in irregular mounds and ridges. In regions not covered with drift—as in the southern parts of Europe and of the United States, the pleistocene deposits are followed without apparent change of conditions, by those now in progress.

{ Though generally speaking, not so continuous over extensive shores as the older formations, yet the tertiary formations constitute the surface of a large part of Europe. In America the earlier portion is found along the sea-board from New Jersey to Louisiana, extending back from ten to one hundred miles, while the later strata are found in detached portions in the Eastern and Middle States. They cover also a large surface in South America and India. They are distinguished from the lower strata by being less consolidated, though the limestone is sometimes solidified, resembling older beds. They have generally less thickness than the lower rocks. In a few instances they have been thrown into inclined portions, but are generally little disturbed, and raised but a few hundred feet above the present sea level.

That which most distinguishes the Tertiary deposits, is the absence of deep sea fossils; the first appearance of existing genera of sea shells; and especially the skeletons, in which some of them abound, of vast animals of the class *mammalia*, including both the carnivorous and the herbivorous. The wildest creations of fancy, the most extraordinary accounts of fabulous creatures, fall altogether short of the numerous strange and

wonderful animals whose bones have of late years been disinterred, and the animals themselves reconstructed, as it were, by the skill of the comparative anatomist. The science of comparative anatomy, founded by the celebrated *Cuvier*, and carried by him to a high degree of perfection, has shed a great light upon the ancient condition of the globe. It proceeds upon the principle, well established by a long series of comparisons, that the skeletons of all vertebrated animals are constructed according to one general idea; and that all changes in the shape of those animals, are brought about not by varying the general plan of the skeleton, but only by varying the details of that plan. It has been further ascertained, that any change in any one bone is always attended by corresponding changes in all the rest, and that the structure of the soft parts is dependent on the structure of the bones. Such is the skill that has been attained upon this subject, that naturalists, from any one single bone, and more especially from the teeth and the bones of the extremities, and even from a single scale of a fish, are able to tell the general figure, habits, and character of the animal, and to point out its place in the order of classification.

Although all the Tertiary beds contain a less or greater quantity of the remains of invertebrated animals, which still exist on the globe, it is only in the very upper strata, which are now every day forming, that remains are found of any of the higher order of existing animals, especially of apes and monkeys; nor, except in the recent strata now forming, have there been found any indications of the existence of man.

It is not to be supposed that all the various strata are anywhere found succeeding each other in the order above described; or that they are diffused with anything like uniformity, over the earth's surface. The geological succession of rocks has only been determined by a comparison of their relative situation in different parts of the earth. We may be sure that a rock of a newer formation will never be found underlaying a rock of an older formation; but many links in the chain of succession are everywhere wanting; and the oldest and newest rocks may thus be seen in actual contact. Nor do the geologists find any difficulty in accounting for this; for upon the supposition of a gradual formation of the present crust of the earth by a series of successive deposits, alternately raised above and sunk below the level of the sea, by the operation of an internal force, it must always have happened, with respect to any given portion of the surface, either that it formed the bottom of some sea or ocean far distant from land, where few or no deposits could be made; or else the bottom of a sea adjoining a continent, where it was liable to receive constant successive deposits; or else that, raised above the surface, it was exposed to lose, by floods and abrasions, a part of the deposits already made upon it. It is thus easy to explain why, in some places, successions of layers are found, which are wholly wanting in others.

The terrible convulsions by which the crust of the earth appears to have been displaced and broken up, at different geological epochs, thus shifting the bed of the ocean, and destroying, in succession, whole families and races of animated beings, may be explained without supposing any interruption in, or departure from, those established laws of nature which are still in permanent operation. For, besides those causes for this phenomenon which have already been mentioned, we must recollect, supposing the earth to have once been in a melted state, that as it continued to cool down, the fluid interior mass would contract; and that the solid crust, thus deprived of its support, would necessarily crack and collapse, in some places sinking, in others rising, and in all passing from a horizontal to a more or less inclined position. Through the openings thus made, the internal melted matter would, by the pressure of the fragments of the broken crust, be pushed up, and would thus pierce through and even overtop the strata which had been formed over it. A new series of deposits might then take place, during a long succession of ages, in newly-formed seas; till at length the diminution of heat having again contracted the melted nucleus of the earth, the crust might be again broken up, whence a new series of revolutions would follow. It is evident that the thicker the superincumbent crust came to be, and the more the central mass was consolidated, the less frequent and less violent these changes would become; which seems to correspond with observed facts,—the more recent deposits being far less distorted and broken than the more ancient. All however, without exception, are more or less traversed by perpendicular dikes of greater or less thickness, apparently formed by the cooling of melted matter injected from below.

We have already observed that water filtering through breaches in the surface, and converted to steam by the internal heat, might give rise to tremendous convulsions; and it is to this agency that modern geologists are inclined to ascribe the earthquakes and volcanic eruptions which still, in some countries, produce very violent convulsions and afford a specimen, on a small scale, of the agencies from which may be supposed to have arisen the existing state of the earth's surface.

Nor do geologists suppose that this warping and contracting of the crust of the earth has even yet, come to an end. They think they have discovered evidence of a change in the level of continents and islands still going on, the land in some places gradually sinking beneath the ocean, and in others, as gradually rising above it; upon the same principle that as one end of a board sinks, the other must rise. Facts are adduced to show, that the coast of North America from the mouth of the St. Lawrence to that of the Hudson, is gradually sinking; while the coast from the mouth of the Hudson to the extremity of Florida, is as gradually rising.

It has even of late been ingeniously argued, that the multitude of islands in the Pacific ocean, whose existence has heretofore been ascribed to the joint operation of submarine volcanoes and the coral insect, are in fact but the last remaining highlands of a vast continent slowly sinking beneath the surface of the ocean.

It is unquestionably the fact, that the successive series of stratified rocks, exhibit in their fossil remains, a constantly progressive advancement in the scale of animal existence, rising by slow degrees, through a long succession of ages, to the more perfect forms, and leading to the conclusion that man is one of the most recent inhabitants of the globe. Yet this progression is not by any means to be understood as proceeding in any strict or precise order, or to be at all apparent with respect to particular families. Thus, among the fossils of the very oldest fossiliferous rocks, we find specimens of cephalopodous molusca, the most perfect family of the class of invertebrated animals; while many of the fishes of the old red sandstone, and saurian animals of the chalk, exceed in complexity and perfection of structure, any existing animals of those classes.

Fossil botany is much less advanced than fossil zoology. Plants are far more destructible than the bony parts of animals, and have been much less perfectly preserved. Beside, the leaves, flowers and fruit, upon which the generic distinctions of plants depend, are, for the most part, wanting in the fossils. The very few and imperfect fossil plants found below the coal-measures, appear to belong to the class of sea-weeds. The coal-measures introduce us to an abundance of vegetables of which about 50 distinct kinds have been made out, including some tree ferns of great size. Vegetable fossils to a greater or less extent continue to be found above the coal. They belong to families now peculiar to the torrid zone, but they are less abundant and less perfectly preserved than those of the coal measures.

Great caution however is to be used in drawing any conclusion from the non-existence of remains or indications of certain classes of animals or vegetables in certain strata, that they did not exist contemporaneously with those strata. The igneous rocks coming from the bowels of the earth in a melted state, can evidently contain no trace of contemporaneous animals or vegetation, and the metamorphic rocks may have lost through excess of heat, producing chemical effects, all such traces. Of the stratified rocks, many were evidently formed at the bottom of deep seas, and could not therefore be expected to contain traces of contemporaneous land animals or plants; while others formed in estuaries, lagoons or swamps, would not be likely to exhibit remains of contemporaneous quadrupeds which might have existed on the dry lands of those ages, lands now sunk to the bottom of the ocean, while the old ocean bed has been changed into our present dry land.

Of the metals, excluding those metallic bases whose affinity for oxygen is such that they can scarce exist in the metallic form, only nine, viz: iron, copper, lead, tin, zinc, manganese, mercury or quicksilver, silver and gold, exist in any considerable quantities, or are of much use in the arts; and even of these, some, such as tin and mercury, are confined to a few localities.

Iron is not only the most important, but altogether the most universal and abundant of the metals. It is so generally diffused, that it may be considered one of the great

constituent elements of the globe, and is to be found in some shape or other, in almost every geological formation. Having a great attraction for oxygen, it is generally found in the form of an oxide; though in some parts of the globe it exists in great masses almost pure.

The metallic ores are found either deposited in beds among the other strata, or more commonly in veins which traverse the rocks, especially the older stratified rocks. These veins have the appearance of having first existed as cracks or openings, in which the metallic oxides were subsequently and slowly deposited, in a more or less crystallized form. In thus speaking of the metals, we do not include the lately discovered, or conjectured metallic bases of the earths and alkalis. These indeed would form a great part of the bulk of the earth; but so great is their affinity for oxygen, some of them burning even in water, that it is excessively difficult to obtain or to keep them in the metallic state.

What progress analytic chemistry may hereafter make, we know not; but even already all the substances, known to us, mineral, vegetable, and animal, have been resolved into about 60 elements, of which about 30 are metals of very rare occurrence, and of no importance in a general view of the elemental substances of the globe. The remainder, besides the metals already enumerated, and the metallic bases of the earths and alkalis, include four principal gases, oxygen, hydrogen, nitrogen and chlorine, and three substances having a great affinity for oxygen and therefore inflammable, carbon, sulphur, and phosphorus. These simple substances have peculiar tendencies to unite with each other, called by chemists *electric attraction*, greatly modified and controlled however, by the agency of heat, electricity, galvanism, and magnetism, agents which chemists are beginning to suppose to be one and the same under different forms. By combinations through these agencies are derived, from the elements above referred to, all the various substances of the globe, many of which, especially vegetable and animal substances, are in a constant process of composition and decomposition through the agency of these same causes. This indeed is true even of all mineral substances exposed to the action of heat, air and water; though the process in their case, is generally slower. The power of man over nature consists in a knowledge of these laws, and of the ability thence derived, to modify the various substances about him for the accomplishment of his own purposes.

Chemists have observed that the elements out of which all substances are composed, always unite in certain definite proportions, either one part of an element, with one part of another element, or two parts of one, with one of another, or three parts of one, with one, or two parts of another, and so on, the proportions of the same element in different combinations, being always multiples of each other. They have also observed that in the process of crystallization, (during which portions of one substance dissolved in another, unite again into one solid and homogeneous mass,) there is always a tendency to take on certain particular forms; and from these, and other considerations, they have been led to conclude, that the ultimate particles of the elemental substances, consist of atoms, vastly too small to be discerned even by the aid of the most powerful microscopes, but still having fixed and definite forms, and not capable of any further subdivision.

Carbon, which exists in its perfectly pure state, in the form of the diamond, becomes when united with oxygen and hydrogen in the same proportion in which they combine to form water, the main constituent of all plants; though a certain portion of potash or soda is necessary to them, and indeed they contain greater or less proportions of eight or ten of the solid substances, which are chief components in the earth's surface. Some of these substances are more particularly necessary for particular species of plants; whence particular species flourish best in soils containing their favorite ingredients. Hence it happens that particular geological formations are particularly adapted to the growth of certain plants; and the geological character of a district may be often determined from the character of its prevailing vegetation. It thus becomes apparent that the sciences of geology, mineralogy, and chemistry, are of the utmost importance to agriculture, that art on which mankind are dependent for their daily bread.

IX. CLASSIFICATION OF PLANTS AND ANIMALS.

1. *Plants.* To facilitate the knowledge of Plants and Animals, of which the existing species are so very numerous — not less perhaps than a hundred thousand of each — it is necessary to adopt some system of classification; and it will be useful to the reader here to state the general outline of the systems of classification employed by recent naturalists.

Systems of classification may be either *Natural* or *Artificial*. The artificial systems are adapted merely to assist the memory, and to aid in the identification of any given species. In these systems the most dissimilar species are sometimes brought together, owing merely to an accidental similarity in some one particular. Such is the system of botanic arrangement, devised by Linnaeus, in which all plants are arranged into twenty-four orders, according to the number of their stamens and pistils, with an additional order for the non-flowering plants.

In the *natural systems*, objects are classed together according to their general resemblances, and though often attended with great practical difficulties, they are far more interesting, instructive and useful. The following are the first great divisions of the natural arrangement of plants, now generally received.

We find one great division of plants, the seeds of which consist of two lobes having between them the germ of the future plant — like the bean for instance. These two lobes containing the earliest nourishment, become the first two leaves of the plant, which grows up, receiving all accessions to itself from within, the circulation between the fronds and the root being carried on, in the interior, and the outside consisting of dead wood. These plants continue, after the first year, (if they live more than one) to receive accessions in length, but not in thickness. The trunk of the palm trees, which belong to this class, when just above the ground, have a diameter as great as when the tree is a hundred feet high. From this circumstance plants of this class are called *Endogens*, (increasing from within) or from the character of their seeds, *Dy-cotyledonous* (two lobed). Plants of this class abound principally in the warmer climates, and it is to this class, that most fossil plants yet discovered, belong.

Another great class of plants exhibit a spindle-shaped seed with a single lobe, or cotyledon, containing the early nourishment of the plant, and inclosing the germ which puts a root downward, and a shoot upward. This upward shoot becomes the future plant, and after the first year, consists of solid wood within, covered by an exterior bark of several layers, and containing the sap vessels, by which a communication is carried on between the root and the leaves. One layer of this bark hardens every year and becomes wood — the trunk thus growing from the outside. Hence plants of this class are called *Exogens* (growing from without), or from the character of their seeds, *Mono-cotyledonous*, (one lobed). They are characteristic, more particularly of the temperate climate.

The third great natural class of vegetables, consists of the non-flowering plants — ferns, mosses, sea-weeds — hence called *Cryptogamae*, because their organs of fructification are concealed. These plants are found in all climates, but the coldest climates produce hardly any other.

The subdivisions of these three great natural classes are founded, like those of genera and species, upon resemblances of the leaves, flowers, and fruit or seed, towards the production of which last, all the other organs of the plant are subservient.

2. *Animals.* In addition to *organs of nutrition*, by which the substances necessary for their growth, are separated by plants from the air, water, and earth in which they grow, and *organs of reproduction* by which they continue their species, animals possess also a *nervous system*, by which they feel and perceive, and organs of *locomotion*, by which they are able to move themselves, or some part of themselves, from place to place. Yet in the very lowest class of animals, the nervous system is wanting; and even as to organs of locomotion they are so defective, that it is hard to say whether they ought not rather to be classed as plants.

The first great division of animals is into *Vertebrate* and *Invertebrate*; that is to say,

those animals which have a skull, back bone, and bony internal skeleton, and those animals which have not.

The Vertebrate, the more perfect kind of animals, possess a stomach, and its appurtenances, for the conversion of food into blood; a heart and arterial and venous systems, for the circulation of that blood through the body; lungs, or their equivalent, by which the blood, previous to its circulation, is able to receive oxygen from the air, and by which the superfluous carbon is thrown off in the form of vapor; and a nervous system, consisting not only of ganglions, or detached nervous masses, sending off nerves to the different organs, but of a brain and spinal marrow, sending off pairs of nerves on both sides, by means of which the processes of perception, thought, and emotion are carried on, and the motions of the muscles are controlled by the will.

The Vertebrate Animals are divided into four great classes, each inferior to the other in the perfection of its organization; these classes are, 1. Mammalia, 2. Birds, 3. Reptiles, and 4. Fishes.

The Mammalia, or highest class of animals, are those which nurse their young, the young being separated from the parent, alive, and perfectly formed. Animals of this class have all the organs in the highest degree of perfection and complexity. They are divided into nine inferior orders, as follows: 1. *Bimana* (two-handed), including one genus and one species,—man; 2. *Quadramana* (four-handed), the ourangs, apes, monkeys, etc.; 3. *Carnivora* (meat-eating), having four subdivisions—*Chetoptera*, or bats; *Insectivora*, or insect-eaters; the true *Carnivora*, or beasts of prey, including, first, the *Plantigrada*, those like the bear, which walk on the outspread palm, and second, *Digitigrada*, those like the lion, cat, etc., which walk on the fingers; lastly, the *Amphibia*, seals, etc., living mostly in the water; 4. *Marsupia*, distinguished by a pouch, in which they conceal and carry their young, as the kangaroo and opossum; 5. *Rodentia* (gnawers), rats and squirrels; 6. *Edentata* (without teeth in the front jaw), sloths, etc.; 7. *Pachydermata* (thick-skinned), as the elephant, horse, hog, and rhinoceros; 8. *Ruminantia* (cud-chewing), ox, sheep, etc.; 9. *Cetacia*, whales, which though living in the water, yet breathe and nurse their young like the land-animals.

The division of Mammalia into genera and species is governed by differences in the teeth and extremities, according to which the whole structure of the animal is found to be modified.

The next class of vertebrate animals, or *Birds*, have an inferior nervous organization, though they possess some of the senses very acutely, and many of them exhibit great sagacity. They are organized for flight: their bones are hollow, and communicate with the lungs, so as to be filled with air. In this and the two following classes, the young are separated from the parent in the form of eggs, containing a germ, which becomes vital by a process of incubation, or by the natural heat of the substances among which the eggs are deposited.

Birds are divided into five orders, viz. 1. *Rapaces* (birds of prey); 2. *Incessores* (sitters or perchers); 3. *Rasores* (sharp-beaked); 4. *Grallatores* (waders); 5. *Nataiores* (swimmers).

The third class of vertebrate animals is that of *Reptiles*. The lungs and circulatory apparatus of these animals are defective. The circulation is slow, the blood is imperfectly oxygenized, and is cold. These animals pass a great part of their lives in a torpid state. They inhabit the sea, rivers, marshes, and the dry land. They include four orders: 1. *Chelonia* or tortoises, including the turtles inhabiting the water, and the proper tortoises inhabiting the land; 2. *Sauria* or lizards, the crocodile, alligator, chameleon, etc.; 3. *Opidia* or snakes; 4. *Batrachia* or frogs.

The fourth class of vertebrate animals, that of *Fishes*, is much less perfectly organized, than the three preceding orders. Not only is their blood cold, but the only air they breathe is a small quantity separated from the water by means of the gills.

The fishes are far more numerous than all the other vertebrate animals put together, and their classification has been attended with some difficulty. Cuvier, the father of modern zoology, made a subdivision of fishes into the *bony* and *cartilaginous*, founded on the fact that while those of the first class possess a perfect bony skeleton, those of the second class have a vertebral column simply cartilaginous, and not containing any real bone,

although earthy particles are secreted and made use of by the animal in providing bony plates to cover the head and anterior parts of the body. The bony fishes Cuvier divided into two orders, according as they had or had not spines on the fore part of some of the fins. The first order he called *Acanthopterygian* (thorny-finned), the second order *malacopterygian* (soft-finned). The *Cartilaginous* fishes constituted his third order.

M. Agassiz, a very distinguished living naturalist, has proposed a different classification, founded entirely upon the nature of the scales, which constitute the external covering of fishes. He proposes four orders, as follows: 1. *Ganoidians* (shiny-scaled), the fishes of this order being covered by angular scales, composed internally of bone, and coated with enamel; the scales are regularly arranged, and entirely cover the skin; of this order are the sturgeon and bony pike of the American lakes; 2. *Placoidians* (plate-scaled), whose skins are irregularly covered with plates of enamel, often of considerable dimensions, but sometimes reduced to small points, like the shagrin on the skin of the shark, and the prickly tubercles of some other fishes; 3. *Ctenoidians* (comb-scaled), covered with horny or bony scales, jagged like the teeth of a comb, on the outer edge, as the perch, etc.; 4. *Cyclodians* (circle-scaled), having scales smooth and simple at the margin, and often ornamented at the upper surface, as the herring, salmon, etc. The existing fishes of the two latter orders are far more numerous than those of the two former. The fossil fishes are of the two former orders.

The Invertebrate Animals have no proper internal skeleton, and of course no brain nor spinal marrow. Their nervous system consists only of ganglions, or detached nervous masses, from which nerves proceed not in pairs but irregularly. One great mass of nervous matter, situated near the stomach, communicates with the nerves of the external senses, and fulfils the purpose of a brain. They are divided into three great classes, the third of which has, of late, been subdivided into two.

The first class consists of the *Molusca* (soft, pulpy animals), but having generally an exterior skeleton or hard covering of shell. The nutritive apparatus of these animals is comparatively perfect, but for the most part they exhibit very little intelligence, and many of them have very limited powers of locomotion. They are divided into seven orders, as follows: 1. the *Cephalopoda* (head-footed), which exhibits the nearest approach to vertebrate animals. Some of them even possess an internal osseous skeleton, or something which approaches to it. They are also occasionally provided with an external shell, secreted by a fleshy skin, called the mantle; their body is a closed bag furnished with a head and prominent eyes; on the head are supported numerous complex organs of locomotion and prehension, and hence their name is derived. The *nautilus* belongs to this class; also many extinct genera; 2. the *Pteropoda* (wing-footed) comprises only a few species, but these are incredibly abundant; they swim in myriads through the ocean, forming occasionally the food of whales, the largest of living animals. They are provided with broad fleshy expansions, or fins, which enable them to move rapidly through the water, and distinguish them from the next order, to which they are in other respects nearly allied; 3. the *Gasteropoda* (belly-footed), so called from their peculiar method of locomotion, the animal gliding along by means of contractions of the fleshy skin with which it is covered. This order includes the whole tribe of land and water univalve shells, with the exception only of the *Cephalopoda*; 4. the *Conchifera* (shell-bearers) also includes a very extensive and well-known group of animals, comprising, with few exceptions, the inhabitants of all bivalve shells. These exceptions constitute the next order; 5. The *Brachiopoda* (arm-footed), so named from two spiral arms, placed on either side of the mouth of the animal, and, in some species at least, capable of being unrolled to a considerable length, and protruded in search of food; 6. the *Vermicata* (coated), a group of very singular animals, enveloped in a tough skin, but often so delicate as to be perfectly transparent; 7. the *Cirrhopoda* (hair-footed), which receive their name from certain hair-like appendages, by whose rapid motion a species of current is formed in the water, attracting in its vortex any light small animals that may be floating about within reach of the mouth, by which they are at once seized and crushed. As the first order of the *Molusca*, the *Cephalopoda*, partake of the structure of vertebrate animals, so this last order combines the limbs of the *Articulata* with the characters of the *Molusca*, and may almost be looked on as intermediate between the two.

The second class of invertebrata are the *Articulata*, or jointed-animals. They are divided into five orders, as follows : 1. *Crustacea*, crabs, lobsters, beetles ; 2. *Arachnidea*, spiders ; 3. *Insecta*, proper insects, having six legs, as bees, ants, etc. ; 4. *Myriapoda* or centipedes ; 5. *Annelidans* (ringed-animals), as worms, grubs, etc.

Animals of this class are more simple in their structure than the *Molusca* : their lungs consist of mere tubes, and their circulating and nutritive organs are much simplified ; but some of them, especially the ant, bee, and spider, exhibit a remarkable degree of sagacity.

The third class of invertebrate animals, called *Zoophytes* or *Radiata*, from the rayed or stellar form which many animals belonging to it assume, has been lately subdivided into two classes. The first of these classes is called *Nemaloneura*, from the circumstance that the animals belonging to it still possess a nervous system, though reduced to the form of a mere simple thread. It includes five orders : 1. *Echinodermata*, sea-urchins, etc., in which the radiated form is very conspicuous ; 2. *Epizoa*, parasitic animals, living upon the exterior of other animals ; 3. *Rotifera*, wheel-animalcules, minute, rotating, microscopic animals, abounding in certain fluids ; 4. *Bryozoa* ; 5. *Coelcemintha*, internal parasitic animals found preying on the integuments of other animals, and so minute as usually to be seen only with a microscope.

The other division of the *Radiata* is called *Acrita*. The creatures belonging to this division, have no nervous system at all, and very limited powers of locomotion. They have, indeed, scarcely any of those functions which we are in the habit of considering as inseparable from vitality. They are divided into five orders : 1. *Sterelmintha*, the different species of which live exclusively in the alimentary canal, the liver, the brain, and other parts of more highly organized animals ; 2. the *Acalephæ*, animals floating, in swarms, on the ocean, and exhibiting to the common observer the appearance of a lump of jelly, and no traces of that elaborate structure which they really possess ; 3. the *Polygastrica* (many-bellied), or infusorial animalcules, of which myriads may be found in every pool of dirty water, and which increase so rapidly by a process of subdivision, that from a single animal as many as 270 millions may be produced in a month ; 4. the *Polyps*, including the coral animalcules, whose labors in secreting and depositing carbonate of lime are permanently recorded in the crust of the earth, and which have, by their vast numbers and never-ceasing activity, actually formed a large proportion of the solid materials of the earth. The internal structure of these coral animals is so simple as to consist of little more than a stomach to separate from the sea-water a quantity of carbonate of lime, with which they build their habitations ; 5. the *Sponges*, those animals, if indeed they can be called animals, which give no indication of any sensation, which have no voluntary motion, which exhibit no internal receptacle for food, no apparatus for digestion, and in fact which only differ from the solid rock to which they are affixed, by the possession of canals, which communicate with one another and permeate the whole body, conveying the water which surrounds the mass, to all parts of the structure.

The above classification of animals includes not only the existing but also the extinct species, the discovery of which has given such a new interest and importance to the study of zoology.

X. MAN

1. *Varieties of the Human Race.* All men, whatever their variety in external appearance or internal structure, are acknowledged by Naturalists, to constitute a single species, and even a single genus and order in the arrangement of animals.

The test of a species is, the power of the individuals belonging to it mutually to propagate their race indefinitely. Some species nearly allied to each other, are able to produce between them, a hybrid or mixed race, as in the case of the mule, the offspring of the horse and ass. But these hybrids are barren, and have no power of continuing their race ; and thus it is, that species are prevented from intermixing with each other, and so confusing the present order and arrangement of nature.

Now men of every variety possess the power of continuing the human race in conjunction with individuals of any other variety ; and hence it is certain that there are no specific differences among men. At the same time there are some very obvious varieties

among the men found inhabiting various parts of the globe; and great disputes have existed among naturalists, as to the causes, nature, and extent of those differences.

One party has been inclined to represent these differences as very great, and has even sought to degrade some races of men into an alliance with apes and monkeys. This party has held that the existing varieties of the human species must have been permanent and original; and that they are wholly inconsistent with the idea, that all men originally descended from one pair, or that one variety of the human race is capable, by the operation of existing natural causes, of being transformed, in the course of time, into any other variety.

Another party, no less learned and zealous, have stickled for the natural equality and original relationship of all branches of the human family, and have ascribed the differences now existing, to the effect of climate, food, mode of life, and other causes, which are well known to produce a remarkable effect, not only upon manners, but upon external appearance, and even internal organization.

It is to be feared that this question has not always been discussed as a purely scientific question, but too often, in a social point of view very likely to prejudice and mislead. Thus, some writers upon this subject, seem to have imagined, that if they could establish the physical and mental superiority of one race over another, they established, at the same time, in that superior race, a sort of natural right to tyrannize over the inferior race, and even to reduce them to slavery. But this conclusion by no means seems to follow from the premises; because weakness or inferiority ought certainly rather to be grounds for kindness and benevolent guidance, than for oppression or plunder. That one race has a right to oppress others on account of their inferiority, is a doctrine which savors too much of barbarism, and is hardly fitted for these enlightened times.

The alleged superiority of some races over others, has also been the foundation of laws enacted in many of those countries, in which two or more races have come into contact, designed to keep those races distinct, on the ground that by this intermixture, the nobler race would be degraded and debased, and that an inferior population would thence result. It is to be observed however that these laws have always proved quite unavailing. In spite of the most strenuous efforts of legislators, two races never remain in contact without intermixture; and this amalgamation becomes, with every passing generation, more and more complete. It is this circumstance principally, which makes it so difficult to arrive at any satisfactory classification of the existing varieties of the human family. The most distinct and well marked varieties, whenever they come into contact, always intermix, and produce a vast number of intermediate varieties passing into each other by imperceptible gradations. On the other hand, the transfer of portions of one race to new countries and climates, always gives rise to new varieties which acquire a permanent character. Thus the children of Europeans born in America, called by the Spanish *creoles*, a distinguishing epithet which has been adopted in all the European tropical colonies, have physical peculiarities by which they may be readily distinguished from Europeans; and the same is true of the children born of English parents in the Australian colonies.

The most striking differences in the varieties of the human race, are in the color and texture of the skin and hair. These however are varieties which are known to be easiest produced. All the domestic animals, which are exposed like man to modifications of their natural habits, the result of human intelligence, are liable to very great variations of this sort, to which in general we ascribe very little importance. It has been maintained by many, that the dark color and curly hair of the negroes are but a deviation from the original white color, produced by heat and other peculiarities of climate. A celebrated writer upon this subject, Dr. Pritchard, has lately started an opposite theory, that the original color was dark, and that the light-colored races are deviations from the original type.

But it is not in external appearance only, that races differ from each other. There are varieties in the shape and proportions of the skeleton, and especially of the skull, to which naturalists have been inclined to ascribe a much greater importance. But even variations of this sort, may be, and are produced by well known natural causes.

There is a degeneration, in these respects, among the underfed and overworked classes

of society, which tends constantly to become permanent; and on the other hand, sufficient and nutritive food and agreeable exercise, may affect the physical constitution not only of individuals, but of races.

In point of fact, we do not yet possess any such distinct knowledge of the number, extent and history of the varieties of the human species, as are absolutely requisite towards forming any specific opinion as to their cause. The commonly received division into five varieties, was made in the very infancy of the study of this subject, and is by no means adequate to express what is now actually known of the subject.

On the continent of America, there are two well marked varieties; 1st, the Esquimaux, in the polar regions; 2nd, the Indians, so called, a race with many sub-varieties, originally inhabiting all the rest of the continent. The eastern continent presents not less than six very distinct varieties, viz: 1st, the people under the arctic circle, who have many peculiarities, and who seem to have been driven in very ancient times, by stronger tribes into that last retreat; 2nd, the Indo-Germanic, or Caucasian race, including the Europeans generally, the Arabs, the Persians, the Turks and the Hindus. Within the period of history a good deal of Mongol blood has been diffused among this race, and it is probable that among the Hindus especially, there has been much intermixture of other races. All the celebrated nations of antiquity, the Persians, Egyptians, Carthaginians, Greeks and Romans, as well as those of modern times, belong to this race, which either from natural superiority, or from more favorable circumstances, or from both united, has far surpassed the other varieties in the career of civilization. 3d. The Mongols, including the Chinese, Japanese, and generally the people of eastern Asia. This variety, though quite stationary at present, has, in times past, made great progress in art and improvement. It embraces a very large portion of the human family. 5th. The Berbers, a collective name given to the inhabitants of northern Africa, who with great differences among themselves, are yet distinguishable both from the Arabs who have invaded and conquered that region, and their southern neighbors, the negroes. 6th. The Negroes, the inhabitants of western Africa, under the equator, between the great northern and southern deserts of that continent. There are peculiarities in the physical character of that portion of the globe, which might be expected to act powerfully on its inhabitants. But both this country, and the people who dwell in it, are yet very imperfectly known. The sub-varieties among the Negroes, are very numerous and well marked. 7th. The Caffres or Hottentots, inhabiting the south-eastern portion of Africa, and separated from the Negroes by the great southern desert of that continent. These people have long, straight hair, and, on the whole, are very different from the Negroes, but they and their country are even less known. The great district called Oceanica, presents at least two varieties. 1st. The Papuans or Oriental Negroes, to which class belong the inhabitants of New Holland, of Papua or New Guinea, and the neighboring islands, and also of the interior of Borneo, Celebes and all of that group. 2nd. The Malays, who inhabit the coasts of the Malayan peninsula and the neighboring islands, and who are considered to include the inhabitants of the western groups of Polynesia, though this classification is not very satisfactory.

Thus we have no less than ten well marked varieties, to which we ought to add three more, which have arisen within the last three centuries, from an intermixture of races, which within that period, has taken place in America. These are 1st, the Mulattoes, with a vast number of sub-varieties springing from the intermixture of the Negroes with the whites. 2nd, the Mestizoes, also with many sub-varieties, from the intermixture of the whites with the aboriginal Americans; and 3d, The Zamboas, from the intermixture of the Negroes with the Indians. These mixed races constitute a large proportion of the inhabitants of all that portion of America south of the United States; and even in the United States, they are not few. From the known history of these three races we may form conjectures as to the origin of others, of whose history we know nothing.

Though distinctions of race have often been a ground of hostility, they are by no means sufficient to serve as a bond of union. In this respect they are even inferior to community of Language, which serves to bind together even the most diverse races.

2. *Language.* It is only within a very recent period that the subject of Language has been studied in a spirit at all comprehensive. The notion long prevalent among the

learned, that the Hebrew was the oldest of languages, and indeed that all other languages were derived from it. Modern researches have shown that there is no ground for this opinion. Even in that variety of the human family (the Caucasian) to which the Hebrews belong, only one, and that the smaller section of the race, to wit, the Arabs and Syrians, speak languages related to the Hebrew. The modern Arabic is the present representative of these languages, which were originally written without vowels. All the other great nations of the Caucasian race, spoke and still speak, languages of which the Sanscrit, the sacred language of the Hindu Bramins, appears to be the oldest existing type. Remarkable analogies to the Sanscrit, showing a common origin, have been traced through the Greek, Latin, Persian, Slavonic, German, and all the languages derived from them. Whether the Celtic languages belong to this class is doubtful.

The Mongolian variety of men have too, among themselves, a variety of languages. The northern Tartars, the conquerors at times of Persia, Russia, India, and China, have a written language wholly different from the monosyllabic language of the Chinese.

With respect to the languages spoken by the other great varieties of the human family, we know but little. Indeed, far the greater part of them have never been reduced to writing, and are known only to a limited number of individuals. In savage and barbarous states of society, there is a great tendency to the multiplication of languages. Every clan, or small district, has its particular dialect; and these dialects grow more and more diverse. Those languages which have become most famous as vehicles of thought, in which the most famous works have been written, and which have been spoken in the most uniform way, over the greatest tracts of country, seem to have been originally the dialect of some single city, used by some popular authors, and which thence came to be looked up to as a model, and to be studied and imitated by all who aimed at elegance, or claimed to be educated. Thus the Greek language, in the form in which it was written and spoken for more than fifteen hundred years, being spread through the then known world by the colonizing and enterprising character of the Greeks, or the conquests of Alexander, was derived from the city of Athens, where many famous authors lived, by whose authority the language became fixed and settled, the various dialects which had prevailed in former times being superseded by the Attic. So Latin was originally the language of the city of Rome, diffused by conquest, first over Italy, and then over the whole of western Europe. The written Italian was the dialect of Florence; French, originally, was the dialect of Paris; and English, the dialect of London. Throughout America, whither the English was brought after it became a written language, it is spoken with much greater uniformity and purity than by the lower orders of the English themselves, who use a variety of local dialects, many of which are hardly intelligible to a stranger.

Those languages which contain the richest and most valuable records of the history, the thoughts, and researches of man, are: 1. the Greek, 2. the Latin, 3. the Arabic, 4. the Italian, 5. the French, 6. the English, 7. the German. The Greek and Latin are no longer spoken as vernacular tongues; the modern Greek being hardly so much like the ancient as the Italian is like the Latin. The Latin language continued, throughout Europe, to be the language of learned men, in which all scientific treatises were written, till within about two hundred years; and it is still used, to a certain extent, for that purpose. Down to the period named, the correspondence of the learned, and all diplomatic correspondence, was carried on in Latin. Some of the most celebrated of modern works, such as Bacon's *Novum Organum*, Milton's *Defence of the English People*, for the execution of Charles I., and Newton's *Principia*, were originally published in Latin. All the professions made great use of it, and most professional treatises were written in it. We can thus easily understand how the knowledge of Latin has so long been considered an essential step towards a liberal education. Latin is still the language of the Catholic church; and Greek, of the Greek church; in which prayers are said, and public worship performed.

The Saracens, after the establishment of the splendid empire of the Caliphs, while Europe was overrun with barbarous tribes from the north and east, and sinking every day into ignorance, caught up the torch of science and translated into Arabic many works from the Greek, especially those on mathematics and other scientific subjects, several of which are known at present only through the medium of these translations. No incon-

siderable part of the early knowledge of modern Europe, on matters of science, was derived from Arabic writings.

The modern languages of Europe, at first employed only in ballads and romantic rhymes, and scorned by the learned, have in process of time been so much enriched, simplified, and improved, that, in point of copiousness and exactness of expression, though not perhaps in harmony, they now surpass the ancient tongues. The *Italian* and *Spanish*, intermixtures of the Gothic with the Latin, were the first of these languages which were carried to perfection. The Italian, especially, was first used for scientific purposes; but free inquiry was suppressed, in Italy and Spain, by the inquisition. At present, we may consider the *English*, *French*, and *German* as the three languages in which the wide-spread researches and almost daily discoveries of modern science are principally published, and the knowledge of which is most useful and essential. These languages are all closely related to each other, the French being a mixture of the old German with the Latin, and the English a mixture of the old German with the French. The English, which, two hundred years ago, was spoken only by about four or five millions of persons in the island of Great Britain, is now rapidly spreading all round the globe. It is the language of the fast-increasing population of North America, where it has become the mother-tongue of the transplanted Africans, and is beginning to be acquired and used by the more civilized portion of the Indians. It prevails in the West Indies, and is spoken on the continent of South America. It has been planted all along the west coast of Africa, and at the Cape of Good Hope. In the great empire of Indostan, the English is the official language of the government, and from that circumstance among others, it is rapidly spreading among the people. English colonists have carried it to Australia and New Zealand, and it seems likely to become the language of the Pacific. It is much to be regretted that a language otherwise so simple and so easily acquired, should be oppressed with an orthography so arbitrary and irregular, and which fails so totally to express the sound. In this respect the English and French are quite peculiar. Unfortunately the orthography of these languages was settled long before the pronunciation was fixed, and with less regard to the actual sounds of these languages as spoken, than to the orthography of the ancient languages from which they are derived. It is to be hoped that this great defect may yet be remedied.

The *Dutch*, *Flemish*, *Danish*, and *Swedish* are intermediate between the German and English; the *Portuguese* is but a dialect of the Spanish. The *Hungarian* is a very peculiar dialect, brought, by the predecessors of the present inhabitants of Hungary, far from the East. In all the eastern part of Europe, the *Slavonian* language is spoken in various dialects, of which the *Polish*, *Russian*, and *Bohemian* are the most noted. The Russian language is only now beginning to be cultivated. The *Celtic*, of which there are several existing dialects, as the *Welsh*, *Gaelic*, *Irish*, *Breton*, etc., was the language of the Celts, the ancient inhabitants of Western Europe, who were first conquered by the Romans, and then displaced by the barbarous invaders from the east and north-east, by whom the Roman empire was overturned. In the mountains of Spain and in the extreme north, are found singular and peculiar dialects, the *Basque* and the *Finnish*, the only remaining record of tribes almost extinct, who once perhaps might have possessed the greater part of Europe.

Great expectations were, for a time, entertained of the literary treasures which it was supposed would be found in the *Sanscrit*, which first became known in Europe about the end of the last century. These expectations have been, in a great measure, disappointed. This language contains no historical works whatever; so that we are left to inference and conjecture as to the history of the nations by whom it was spoken. It abounds in poems founded on the extravagant mythology of the Hindus, and contains some rhymed treatises on mathematics, astronomy, and metaphysics. The ancient language called *Zend*, preserved only in some fragments of the *Zendavesta* or sacred books of the Magians; and the *Pali*, in which the sacred books of the Boodhists are written, are closely related to the Sanscrit. The existing languages of Hindostan, the *Hindostanee*, *Bengalee*, etc., produced by the intermixture of nations in that peninsula, are more or less related to the Sanscrit. They contain no writings of any value, and it is to be hoped they will

one day be superseded by the English. The *Persian* and *Turkish* are also modern languages. They contain some historical writings; and the Persian, especially, some poems of celebrity. The *Chinese* have a great many books, which as yet are but little known. Some valuable historical information has been derived, and more may be, from their annals, which run back to a very distant period; though it is only for the last thousand years that they appear to possess any great degree of authenticity. The peculiar method of writing adopted by the Chinese, appears to have acted as a great clog upon their scientific progress.

A universal language has been a subject which has, at times, employed the thoughts of the scientific. It would certainly be a vast benefit. The predominancy and general diffusion which a few tongues, as the Chinese, Arabic, English, French, German, and Spanish have attained, constitute a degree of progress towards it. Yet still it remains to be greatly regretted that so much time and labor have to be spent, not in the study of science but in acquiring languages, which are mere instruments of science.

3. *Religions*.—A still stronger bond among nations even than community of language is identity of Religion. Groups of nations are formed on the ground of this resemblance. Thus we speak of *Christendom* as including all the nations which profess the Christian religion. The Mohammedan nations constitute another group, bound together, to a certain extent, by a religious tie.

Religions may be divided into two classes: 1. *Documentary Religions*, those which possess written documents to which a sacred character is ascribed, and which contain the doctrines and ceremonies of the religion; and 2. *Traditionary Religions*, those without any such documents, their doctrines and ceremonies being transmitted by tradition, through an order of priests. The great efficacy of written documents is strongly evinced in the superior permanency of those religions that possess them. Thus the religions of Greece, Rome, Egypt, and Carthage, the religion of the Druids, which prevailed among the Celts, and the Gothic religion, as well as the elaborate systems of the Mexicans and Peruvians, have totally ceased from off the earth. This is a fate which is not known to have happened to any religion possessing sacred books. The Jewish religion, though exposed to the most barbarous persecutions, still flourishes in full vigor; the Magian religion still has its adherents, who look up with reverence to the books of Zoroaster; the Mohammedans were unable to suppress the Hindu faith founded on the Vedas; the Hindus were equally unable to suppress the Boodhists, who have their Bedagat or collection of sacred writings. The Christian and Mohammedan religions, both of which have had their origin within the period of history, have swallowed up and superseded a vast number of traditionary religions, and are still daily spreading. Mohammedanism is gradually diffusing itself through the whole interior of Africa; the zeal of the Christians sends missionaries to every part of the world, but with much the most success among those people who have no sacred books of their own. Boodhism appears originally to have been spread in the same way. It has penetrated through Chin-India, China, and Tartary, and its further spread seems only to be restrained by the fact that it has swallowed up all the merely traditionary religions within its reach. One or the other of four religions, the *Christian*, *Mohammedan*, *Boodhist*, or *Hindu*, now prevails, in some form or other, among all those nations which have made any advance beyond the savage state.

It unfortunately happens that while Documentary religions possess so great a degree of permanency, they have been equally remarkable for intolerance and a spirit of persecution. Thus between Christians and Mohammedans, Mohammedans and Hindus, Hindus and Boodhists, and between the Jews and all the rest, there have existed, and still to a certain extent exist, standing quarrels which have lasted for ages, and have led, at times, to terrible outbreaks of rage and cruelty. But the evil has extended even further. Each religion has become divided into hostile portions. Thus the Christian religion split, centuries ago, into the Roman, Greek, Syriac and Coptic churches, which excommunicated each other. The Roman church has divided into Catholics and Protestants; and the Protestants have separated into a constantly increasing multiplicity of sects. This tendency to division seems to grow in proportion as science and the spirit of inquiry ad-

vances. It is least in the least enlightened ages and countries ; but it has produced and still produces, from want of charity and a liberal toleration of the rights of opinion, the most deplorable results.

4. *Government.*—A stronger tie of union than community of race, language, or religion is to be found in government. Thus we observe different governments, or states, embracing, in one common social union, the greatest diversities of race, language, and religion. Those great empires, by which individuals and communities, separated from each other by so many causes of antipathy, have thus been brought into social relations, have always been built up by conquest. But though cruel and hateful in their origin, they have, in their ultimate results, often done much for the civilization and advancement of mankind. There is a gradual tendency in all communities under a common government, towards an amalgamation into one uniform mass. Thus the various tribes and nations conquered by the Romans, became at length all Latins ; and thus the inhabitants of Great Britain, derived from various sources, speaking different languages, and professing different religions, have, in the progress of years, become all Englishmen. After this consolidation into one people, mutual antipathies can no longer be played off against each other, and the nation thus be kept subject to an absolute master. Hence proceeds, gradually but inevitably, a modification in the form of government, over which public opinion and the common interest of the whole (the people now, for the first time, having become capable of the idea of common interest) exercise a continually increasing influence.

5. *Progress of Enlightenment.*—But it is to the progress of enlightenment that we are to look for the great bond of union and combination, bringing together all the nations of the earth, whatever their race, language, religion, or form of government, into one common brotherhood, all striving together for the advancement of the welfare of the whole. We may notice, in the different portions of the earth, that the spirit of isolation is greatest in the rudest conditions of society ; and that the circle of sympathy grows wider and wider as knowledge progresses. 1. In the *Savage state*, in which hunting and fishing are principally relied upon as a means of support, mankind necessarily roam over a great surface, divided into petty clans. These clans frequently quarrel about hunting grounds and fishing-stations, and carry on against each other almost a perpetual war. 2. In the *Pastoral state*, in which flocks and herds form the great source of subsistence, the number of men multiplies with the increase of food, and communities become larger. But they wander here and there, without any fixed place of abode ; and the expectation of plunder makes them more warlike even than the savage. 3. The *Agricultural state* first leads to fixed habitations ; but unfortunately it almost always has introduced, or rather greatly extended, the practice of slavery, by which a large part of mankind is reduced to a hopeless and stationary condition, and cut off from the benefits of advancing civilization. 4. The rise and progress of *manufactures* and *commerce*, while tending greatly to increase the wealth and comfort of a community, tends also towards the abolition of slavery. It is by this means that servitude, in the process of centuries, has disappeared from western Europe. 5. After agriculture, manufactures and commerce have made a certain degree of progress, and so much wealth has accumulated that there begins to exist a class who have leisure and curiosity, *Science*, properly so called, the investigation of the order and relations of the various phenomena which take place around us, first has its rise. The discoveries of science are capable of being constantly applied to the advancement of the arts. But from a combination of influences, which we have not room here to enumerate, the progress of science is liable constantly to be arrested. Men entertain such a wonder and veneration for the discoveries of their ancestors, that they think it almost sacrilegious to supersede them by discoveries of their own. This is the origin of a very marked division, to be observed among the communities existing on the globe, into 1. *Stationary nations*, in which tradition holds the place of inquiry, and which rather retrograde than advance ; and, 2. *Progressive nations*, those in which science is cultivated, and which, under its influence, are constantly moving forward. The great influence of the progress of science upon the advancement of the arts, has been most strikingly illustrated in the history of the last two centuries, during which, among the progressive nations, the arts have advanced with a constantly accumulating and unparalleled rapidity. The tie of science, of the common pursuit of knowledge, has been found capable of overcoming the strongest antipathies.

Thus, during the middle ages, while the Christians and Mohammedans carried on the most furious hostilities, the scientific men of both religions respected and loved each other; and during the wars of modern Europe, the literary and scientific men of hostile nations have not ceased to regard each other as brothers. But this is not all. The merchants and traders, naturally enough, perhaps, early took up the notion that buyers could only grow rich by getting an advantage of the sellers; and that sellers could only profit and grow rich by gradually drawing away the wealth of the buyers. This notion, which long prevailed, exercised a most pernicious influence, and led to great sharpness, narrowness, and selfishness, in the transactions not only of individuals, but of nations; as though wealth were a thing to be scrambled for and to be attained by some, only from the loss of others. Modern science has most conclusively shown that however true this may be in individual instances, in the long run and as applied to communities it is totally false; that the prosperity of the sellers is dependent on the prosperity of the buyers; and that the buyers must suffer, in their turn, from any permanent injury to the sellers. This view has given a vast increase of liberality and beneficence to the ideas of commerce. At the same time it has become evident that war, hitherto as it were the great occupation of the nations, is inconsistent, not only with humanity, but with all social progress. Hence that indisposition to war, at least with each other, by which the great civilized nations, during the last generation, have become distinguished; hence in spite of all the numerous obstacles still existing, the obvious progress daily making in that view which regards all the members of the human race as belonging to one great family, with common interest to be subserved, and a common happiness to be promoted. Such views are by no means foreign to a treatise upon universal Geography; since the first step towards looking upon men as brothers is to know who they are, and where and how they live.

SUPPLEMENT
TO
GOODRICH'S PICTORIAL GEOGRAPHY.
PART FIRST.



THE OLD WORLD.

I. WHAT WE CALL THE OLD WORLD.

WE designate as the OLD WORLD the three Continents of the Eastern Hemisphere, Europe, Asia, and Africa, together with the islands adjacent to their shores, and usually reckoned a part of them, including with Europe, Iceland and the British Islands; with Africa, Madagascar; and with Asia, the islands of Japan; but excluding all islands south of the Straits of Malacca and west of the China Sea, which we set down as a part of Oceanica, and as such belonging to the New World.

This name of Old World, is not employed in any geological sense, as implying any older existence on the part of these regions, which is so far from being the case, that a large portion at least of Europe, which alone has been critically examined by geologists, consists of formations which give evidence of being among those most recently elevated from beneath the surface of the sea. We merely imply by it, that civilization is of earlier date on these continents, and that our historical knowledge of them runs back to a more ancient period. But the application even in this sense of the phrase Old World, to the entire extent of these continents, must be understood with some limitations. Egypt and Mesopotamia are the countries which, in this historical point of view, may be esteemed the oldest; next come Syria, the coasts of Asiatic Turkey, Greece, Italy, and the shores of the Mediterranean generally. China, separated by vast distances and inhabited by men of a very different race, may boast a nearly equal historical antiquity. Persia begins to appear about the same time on the historical horizon. The position of India, in this respect, is rather equivocal; for although that country exhibits in its languages, and especially in the Sanscrit, evidences of a very high antiquity, it never had any native historians, and its historical annals do not go beyond the invasion of Alexander the Great. The north of Europe, and especially the north-west, the vast interior table-lands of Asia, and the great region of Siberia, are comparatively modern. That part of the African coast south of the Great Desert, only became known about the time of the discovery of America, while the greater part of its interior still remains unknown and unexplored.

As, at present, Europe far predominates over her two sister continents in wealth and social importance, we shall begin our account of the Old World, with her.

II. GENERAL VIEW OF EUROPE.

Extent. Europe includes the following countries :

British Islands (including Guernsey, etc.),.....	117,921	square miles.
Denmark (including Iceland),.....	49,927	" "
Sweden and Norway.....	293,280	" "
Russia (in Europe).....	2,099,908	" "
Germany.....	244,875	" "
The Prussian provinces of Prussia and Posen.....	36,508	" "
Hungary, Galicia, etc.....	164,521	" "
Italy.....	119,706	" "
Switzerland.....	15,815	" "
Holland and Belgium.....	24,644	" "
France.....	204,825	" "
Spain and Portugal.....	216,429	" "
Ionian Islands.....	1,108	" "
Greece.....	19,149	" "
Turkey (in Europe).....	209,422	" "
Total.....	3,819,936	" "

The extent of Europe is hardly equal to that of the United States, and Mexico.

Population. The population is distributed as follows :

British Islands (including Guernsey, etc.)... ..	27,600,000	inhabitants.
Denmark (including Iceland),.....	1,800,000	"
Sweden and Norway.....	4,650,000	"
Russia (in Europe).....	62,000,000	"
Germany... ..	42,000,000	"
The Prussian provinces of Prussia and Posen.....	3,865,000	"
Hungary, Galicia, etc.....	20,082,000	"
Italy.....	24,573,100	"
Switzerland.....	2,400,000	"
Holland and Belgium.....	7,558,000	"
France.....	35,801,000	"
Spain.....	12,000,000	"
Portugal.....	3,750,000	"
Ionian Islands.....	220,000	"
Greece.....	1,000,000	"
Turkey (in Europe),.....	12,500,000	"
Total.....	261,699,100	"

This makes a population of about 70 inhabitants to a square mile—the highest ratio in any division of the world. If the United States were as thickly settled as Europe, they would have a population of 180,000,000 inhabitants; and not less than 800,000,000, if the proportion were like that of Holland and Belgium, where the population is 306 to a square mile.

Seas.—The superficial extent of the inland seas of Europe exceeds 1,800,000 square miles. The following table exhibits the estimate of each :

	sq. miles
Mediterranean Sea	867,000
Adriatic	62,400
Basin comprehended between Candia and the Dardanelles	78,400
Sea of Marmora	8,800
North Sea, or German Ocean	244,000
Black Sea	181,000
Caspian Sea	141,000
Baltic, with all its branches	134,900
White Sea	88,000
English Channel	28,200
St. George's Channel and Irish Sea	25,900
Total of inland seas in Europe	1,800,500

Europe presents a coast-line of nearly 15,000 miles in length.

Peninsulas.—From the manner in which the European continent is penetrated by the ocean, its outline presents a number of peninsulas, to which there is no parallel in the world. The largest of these is the Scandinavian Peninsula, comprising Norway, Sweden, and Lapland. Next follow the three great peninsulas of Western Europe: the Spanish, which includes Spain, Portugal, and the Republic of Andorré; the Italian, so remarkable for its odd form, being shaped like a boot; and the Grecian, not less remarkable for the number of secondary peninsulas which its outline presents. The Morea, forming the southern portion of the latter, alike famous in ancient and modern history, and the Macedonian, the northern portion of the same, which is itself divided into three other peninsulas—those of Monte-Santo, Toron, and Cassandra, are occupied chiefly by the modern kingdom of Greece. The other principal European peninsulas are the Crimea, Southern Russia; Kanin, in the government of Archangel; Jutland, in the north of Germany; and a peninsula which comprehends the province of Holland and Utrecht, which may be termed the Netherlandish. We may also remark that the three departments of Finistère, Morbihan, and Côtés du Nord, form a peninsula in the north-west of France.

Climate. The climate is generally, in the western parts, much warmer than in the same parallels in America and Asia. The difference is equivalent to eight or ten degrees of latitude. This may be accounted for by the currents of warm air and water which, coming from the Gulf of Mexico and flowing north-easterly, set constantly upon the western and northern coasts.

In order to exhibit, in a definite shape, the distribution of heat in the same latitudes, and in each season, we take the following table from Humboldt, *Ann. de Philos.* (xi. 188.):

PLACES.	Mean of Year.	Winter.	Spring.	Summer.	Autumn.
Edinburgh, (lat. 56,).....	47.5.....	38.6.....	46.4.....	58.2.....	48.4.....
Copenhagen, (").....	45.6.....	30.8.....	41.2.....	62.6.....	48.4.....
Moscow, (").....	40.2.....	10.8.....	44.0.....	67.1.....	38.3.....

The warmest month at Edinburgh had a mean temperature of 59.4, and the coldest 38.3; at Copenhagen, 65.0 and 27.2, and at Moscow, 70.6 and 6.0 respectively. Thus it will be perceived that the heat of summer in the more inland or easterly countries is much greater than in those on the seaboard of the west, and *vice versa* in regard to the winter months.

The hottest part of Europe is its south-western extremity. The south of Europe, protected by the great ranges of the Alps from the north and east winds, has generally a warm climate, but being also open to the winds from Africa, sometimes suffers from the influence of the *sirocco*. Humidity characterizes the climate of western Europe. In respect to the duration of the seasons, Europe may be divided into three zones. Southward of 45 deg. the winter is mostly confined to rainy weather from October to February; snow rarely falls, and vegetation is scarcely impeded. The spring lasts from February to April or May; and the summer, during which the thermometer frequently marks 107 deg., and the autumn, divide the remainder of the year. Between 45 deg. and

55 deg. the winter is the longest season, lasting generally from November to March or April; the spring occupies from April to June; the summer, the temperature of which often rises to 92 deg., lasts until September; and the autumn is the shortest season of all. North of 55 deg. the year can only be divided into two seasons—winter and summer. In the more northerly parts of this zone, the snow lies on the ground, and the rivers are frozen for more than six months in the year. Beyond the Arctic Circle the mercury freezes in the thermometer in September, and the desolation of winter is broken only by an intermission of intense heat, during which the sun is perpetually above the horizon.

The quantity of rain that falls depends much on locality, but as a general result, the more equatorial the country, the greater is the degree of humidity. At Upsal, in Sweden, the annual fall is only 16.92 inches; and at St. Petersburg, 18.11; while at Carsagana, in Spain, it amounts to 98.07 inches. The difference in England alone is enormous; at London, 22.7 falls annually; while at Keswick the annual measurement is 67 inches. In the mountain regions of Switzerland, the annual rains measure 51 inches; but in France and Central Europe, and in the northern parts of Italy, the mean rains amount only to from 21 to 35 inches.

4. *Surface.* From the mouth of the Rhine, an immense plain embraces Holland, the north of Germany, the provinces of West and East Prussia, Poland, and Russia, to the Ural mountains; of which the highest elevation, near the sources of the Volga, Dnieper, and Don, is only 1,064 feet. Other plains of smaller extent are to be found in Hungary, Wallachia, Lombardy, France, etc. The mountainous regions of the European continent, occupy together an area of about 979,800 square miles. The most remarkable mountain ranges of Europe are the following:

1. The Alps, the principal chain of mountains in Europe, occupying an area of nearly 74,550 square miles, run from the coast of the Mediterranean sea, at the boundary between France and Italy, through Savoy, Switzerland, Tyrol, and other provinces of Austria, to the western parts of Turkey, at a distance of about 550 miles. Several portions of them have particular names, as, Maritime Alps, nearest to the coast; Cottian Alps, between France and Savoy; Gray Alps, between Savoy and Piedmont; Pennine Alps; Lepontine Alps, etc. The highest peaks of the Alps, are: Mont Blanc, in Savoy, 15,668 feet high; Mount Rosa, in Savoy, but near the frontier of Switzerland, 15,527 feet; Finsteraarhorn, in Switzerland, 14,325 feet; Pelvoux de Vallouise, on the French territory, 14,044 feet; Jungfrau, 13,730 feet; Schreckhorn, 13,310 feet, in Switzerland; Ortles, in Tyrol, 13,065 feet; Watzmann, in Bavaria, 9,150 feet; and Terglou, in Carinthia, 10,194 feet high. The monastery of St. Bernard is situated in one of the high passes of the Alps, and is occupied by monks devoted to the rescue and assistance of travellers, often in danger of perishing in the snow.

2. The Pyrenees separate France from Spain, running in an almost westerly direction from the coast of the Mediterranean sea, to that of the bay of Biscay. The highest peaks of this mountain range, are: the Maladetta, 11,436 feet high; Mont Perdu, 10,482 feet; and Pico Las Posets, 10,584 feet, on the Spanish side, and the Marbore, 10,374 feet; Vignemale, 10,350 feet; Piclong 9,972 feet; and Canijou, 8,800 feet high, on the French side.

3. The Sierra Nevada, the principal mountain range of Spain, covers chiefly that part of the country commonly called Upper Andalusia, or the province of Granada. Its highest peaks are the Cumbre de Mulhacen, 11,678 feet, and Picacho de Veleta, 11,200 feet. One branch of the Sierra Nevada, runs in the direction of Cadiz, and ends in cape Trafalgar. Parallel with the Sierra Nevada, and in the direction of Algrave (the southern province of Portugal,) runs the Sierra Morena, which, in Portugal, bears the name of Sierra Monchique.

4. The Apennines skirt the gulf of Genoa, and run south-east to the south extremity of Italy. They bear particular names, according to their local position. Ligurian Apennines, Etruscan Apennines, Roman Apennines, Neapolitan Apennines, and Abruzzi, in the northern part of the kingdom of Naples. The highest part is the Gran Sasso d'Italia, in Naples, 9,577 feet high; other parts are from six to seven thousand feet. The volcano Mount Vesuvius, near Naples, is 3,932 feet high. On the island of Sicily, be-



Vesuvius.

sides the volcano Mount Etna, 10,870 feet high, are several other notable peaks from 4,000 to near 9,000 feet high.

5. The Carpathian Mountains, forming the boundary between Hungary and Galicia, run in a south-easterly direction from the sources of the Oder river to the Danube. The highest peaks are the Raska Popana, 9,912 feet, and Gailuripi, 9,000 feet.

6. The Scandinavian Mountains form, for a great part, the boundary between Sweden and Norway, where they are called Kolen, or the Keel. The highest peak is the Skagastœltind, 8,400 feet high.

7. The Balkan or Haemus, running east through the midst of Turkey, rises to the height of 10,000 feet in the Tchar Dag, its highest summit. Its general height is 8,000 feet. The Mezzovo ridge, running southerly (the ancient *Pindus*), has one summit of 9,000 feet. Mount Lacha (anciently *Olympus*), according to a recent measurement, is 9,754 feet, Mount Kissok (*Ossa*), 6,407, and Mount Zagora (*Pelion*), 5,310.

8. In France there are, besides the Pyrenees, the Jura Mountains between France and Switzerland, from 4,000 to 5,000 feet high; the Sevnennes, commencing near the east end of the Pyrenees, and running north, forming the dividing ridge between the valleys of the Rhone and Loire; the mountains of Auvergne, branching from the Sevnennes and running north-west, as the dividing ridge between the valleys of the Loire and the Garonne; the Vosges, running parallel with the Rhine, between the provinces of Lorraine and Alsace; the Cote d'Or, in the province of Burgundy, and Morwan Mountains, on the high road between Paris and Lyons, and the Ardennes, running from the northern parts of Champagne to Luxemburg. These last are woody hills rising to 1,800 feet, and part of them are called the Argonnes. The highest of the other French mountains are from 5,000 to 6,000 feet. Puy-Musy is 6,113, and Plomb de Cantal 6,093.

9. The highest mountain range in the north of Germany, called the Sudetic mountains, passes along the southern frontier of Silesia, with different divisions and names. The Sudetic mountains proper form the boundary between Austrian Silesia and Moravia, with the Altvater 4,640 feet, and the Great Schneeberg or Snow peak, 4,400 feet high. The Riesengebirge, or Giants' mountains, form the boundary between Silesia and Bohemia; the Lusatian mountains form the boundary between Lusatia and Bohemia.

10. Other mountain ranges in Germany, are: the Boehmerwald, along the boundary between Bohemia and Bavaria, rising to 4,000 and 4,500 feet; the Erzgebirg, or Ore mountains, the boundary between Bohemia and Saxony, which rise to 3,870 feet; the Fichtel Gebirge, in the north-east part of Bavaria, with the Schneeberg, 3,221 feet, and Ochsenkopf, 3,123 feet; the Black Forest, Schwarzwald, partly belonging to Wurtemberg, but chiefly occupying the southern part of Baden, and covered with gloomy pine forests, whence its name. The mean elevation is from 3,000 to 3,500 feet, though the Feldberg and Belchen, both in Baden, rise to 4,650 and 4,397 feet; the Alps, (which have nothing in common with the Alps in Switzerland and Italy,) in Wurtemberg, commonly called Swabian Alp, thence running north-east through Bavaria, by the name of Franconian Alp; the Odenwald, branching from the Black Forest and running north through Hesse Darmstadt; the Spessart, between Aschaffenburg and Wurtzburg, in Bavaria, with an elevation not exceeding 1,900 feet, and having in its neighborhood the inferior ranges of the Hass Gebirge, and the Steigerwald; the Rhoen Gebirge, on the north-west boundary of Bavaria, having for summits the Holy Kreuzberg, 2,856 feet, Dammersfeld, 2,840 feet, and Beierberg, 2,264 feet; and to the eastward, in Hesse Darmstadt, the range of the Vogelsberg, with an elevation of 2,383 feet; the Thuringerwald, Forest of Thuringia, forming the boundary between Bavaria and the Saxon Duchies, with the Beerberg, 3,064 feet, Schneeopf, 3,043 feet; Inselsberg, 2,855 feet, and Kickelhahn, 2,633 feet; the



French Shepherd of the Landes.

Hartz, a more or less isolated mountain range, occupying the south of Hanover, part of Brunswick, and part of the Prussian province of Saxony, having its highest elevation in the Brocken or Blocksberg, 3,500 feet; that part situated on the west side of the Brocken being called Upper Hartz, and the other part Lower Hartz; the Hunsrucken, or Hundstruck (dog's back), a rough and woody table-land between Treves and Coblenz rising to 2,263 feet in the Idarkopf; the Eifel, between Aix la Chapelle and Treves, rising to 2,260 feet; the Taunus, in Nassau, with the Great Feldberg, 2,605 feet, and Altkönig 2,400 feet; the Westerwald, partly in Nassau, partly in the Prussian province of Westphalia; its north-west slope is formed by the Siebengebirge, or Seven Hills, on the right bank of the Rhine, opposite to Bonn; the Osnig, or Teutoburger Wald, in Lippe-De-mold, and the Wesergebirge or Weser mountains, along the Weser river.

11. The principal mountain ranges in Great Britain, are the Grampian Hills, with the Ben Lawers, 4,051 feet, Ben Nevis, 4,379 feet, and Cairngorm, 4,050 feet, running from the head

of the frith of Clyde, north-east through the centre of Scotland; and the Cheviot Hills, on the southern boundary of Scotland. The highest peaks in England are the Wharnside, 4,052 feet, and Ingleborough, 3,987 feet; and, in Wales, the Snowdon, 3,568 feet, and Cader Idris, 3,550 feet.

12. Iceland. This is almost entirely covered with volcanoes, among them the celebrated Mount Hecla, rising to 5,210 feet. The highest peaks are the Oeraefe-Joekul, 6,240 feet, and the Oester-Joekul, 5,794 feet.

13. In European Russia the Tauric Mountains, in Crimea, rise to 4,740 feet in the Tschadyrdagh. The Wolchonsky Forest, between St. Petersburg and Moscow, is nothing else but a ridge of low hills, not exceeding 1,000 feet in height; although the Volga and other mighty rivers have their sources here. The Ural and Caucasus Mountains belong to Asiatic Russia.

Barren Tracts.—Although Europe presents no tract of any considerable extent that may properly be called a desert, yet unfertile plains, for the most part sandy, occur in several places. These are known by the names of *landes*, in France; *steppes*, in Russia; *ulvens*, in Hungary, etc. The most extensive are found in Russia, which presents, among many others, the steppe of Ryn, between the Volga and Oural; the steppe of the Dural, between that river and the Don; the steppe of Crimea, and the steppe of Petchora.

Next to the steppes of Russia, the most remarkable tracts of a similar description occur in Norway and Sweden, especially in Norway, Lapland, and Wester Gottland. There are several in the Austrian dominions, especially in Hungary, where they are very extensive. They occur, also, in the neighborhood of Stade, Hanover, Lunenburg, and Zell, in the kingdom of Hanover; at Hamburg, and in Pomerania in Prussia; and they occupy the greater portion of the surface of the departments of the Landes and the Gironde, in France. Similar tracts are found in the Neapolitan province of Terra di Bari. These deserts are generally covered with heaths and a variety of unavailable mosses.



Lake View.

5. *Lakes.*—In Russia, are lake Ladoga, east of the Gulf of Finland, and in the neighborhood of St. Petersburg; its extent, computed at 6,220 square miles, exceeds that of the kingdom of Saxony; lake Onega, east of the former, with an extent of 4,260 square miles; lake Ilmen, 28 miles long and 20 wide, in the province of Novogorod; lake Saima, about 40 miles long and wide, in Finland. In Sweden, which abounds in lakes, are lake Wener, not very far from Gottenburg, with an extent of 2,130 square miles; lake Wetter, celebrated for its romantic environs, and remarkable by its extraordinary depth, 100 miles long, and between 14 and 28 miles wide; lake Maelar, near Stockholm, contains about 1,300 islands and islets, with many handsome mansions and castles on them; lake Hjelmar, in the neighborhood of the former, 46 miles long and 20 wide. In Norway are lake Mjös, north of Christiana, 83 miles long and 11 wide, and lake Fæmund at the frontier of Sweden, about 40 miles long.

On the boundary of Switzerland and Germany is the lake of Constance, 37 miles long and about 9 wide. Three bays set up from it, and are called Ueberlingen, Lower, and Zeller lakes. On the confines of Switzerland and Savoy, is the lake of Geneva, 42 miles long and 7 wide. In Switzerland are the lake of Neufchatel, 18 miles long and about 5 wide, in the canton of Neufchatel; lake of Biel, in the canton of Bern; lake of Thun, in the canton of Bern; lake of Luzerne, in the centre of Switzerland; lake of Zurich, surrounded by the cantons of Zurich, St. Gall, and Schwytz; and lake of Lugano, in the canton of Tesino. The most remarkable lakes of Italy, are lake Maggiore, in Lombardy and Piedmont, 37 miles long and about 8 wide; lake Como, in Lombardy, 32 miles long; lake di Garda, east of the former; lake of Peruja, in the States of the Church. In Hungary, are the lake of Balaton or Platten-See, 46 miles long, and lake of Neusiedl, near the frontier of Austria. In Holland is the Haarlem lake, covering a tract of 33,000 acres. In Scotland are Loch Lomond, 23 miles long and 9 wide, Loch Ness, 20 miles long, and Loch Awe; in Ireland, Lough Neagh, 18 miles long; and in England, Lake Winander, 14 miles long.

Lagunes are numerous along the south coast of the Baltic, and some parts of the Adriatic shores; and Holland is full of dykes and pools. The coasts of Norway and parts of Sweden abound with inlets of the sea, which often stretch a long distance inland; these, however, do not consist of stagnant waters. Swamps occupy nearly the whole basin of the Priépec, in Poland, and along the courses of the Danube and Theiss, in Hungary, and at the mouths of the Danube, Po, and other rivers, they are extensive. Many of minor extent are to be found in the great plain of the continent; in the eastern parts of England; in Touraine, in France; in Italy (in particular the Pontine Marshes); in Sicily, in western Greece, and on the shores of the Black Sea.

6. *Rivers.*—The largest is the Volga, having its head in the Wolchonsky Forest, and a course of 2,166 miles, and emptying by about 70 outlets into the Caspian Sea. Its chief branches are the Oka, Sura, Mologa, Kostroma, Wetluga, and Kama. The Dnie-

per (the Borysthenes of the ancients), has its sources in the province of Smolenak, and a course of 1,209 miles. It empties, in the neighborhood of Odessa, into the Black Sea, forming there the Gulf of Liman. Its chief branches are the Beresina, Pripet, Bog, Desna, and Samara (by the Cossacks called the Holy River. The Don (in ancient times Tanais,) has its sources in the neighborhood of Tula. Its course is 1,081 miles. It empties into the Sea of Azof. Its chief branches are the Choper and Donez. The Dniester (in ancient times called Tyras, or Danastris) rises in the Carpathian Mountains, not far from Lemberg; and after a course of 506 miles, empties into the Black Sea, near the mouth of the Dnieper. The Kuban (by Herodotus called Hypanis; by Ptolemy, Vardanes; and by the Genoese, in the middle ages, Copa) has its sources in the Caucasian Mountains. Its length is 473 miles. It empties, by one outlet, into the Sea of Azof, and by another into the Black Sea. The Terek rises in the Caucasian Mountains, and empties into the Caspian Sea. The Petschora has its sources in the Ural Mountains, and a length of 690 miles. Its mouth is in the Arctic Ocean. The Mezen rises in the province of Wologda. Its length is 552 miles; its mouth is in the White Sea. So is the Dwina; whose length is 736 miles. Its chief branches are the Wytsczegda, Pinega, and Waga. The Newa, issuing from the lake Ladoga, and emptying into the Gulf of Finland, has a length of only 39 miles, but is, at St. Petersburg, from 1,800 to 2,400 feet wide. The Duna, rising near the sources of the Volga, has a length of 644 miles, and flows below Riga, into the Gulf of Riga. The Tornea, emptying into the Gulf of Bothnia, forms the boundary between Russia and Sweden.

The Niemen rises in the Russian province of Minsk, has a length of 530 miles, and, crossing Prussia, where it receives the name of Memel, empties into the Baltic. The Vistula, which rises at the frontier of Austrian Silesia, has a length of 681 miles. In Prussia, it is from 1,000 to 2,000 feet wide, and empties into the Baltic Sea by two outlets, of which the eastern is called Nogat. The chief branches of the Vistula are the Bug, San, Wieprz, Drewenz, Ossa, Pilica, and Mottlau. The Oder, which rises in the Sudectic Mountains, at the frontier of Moravia, crosses Silesia, Brandenburg, and Pomerania, and empties, below Stettin, into the Baltic Sea. Its length is 616 miles. The chief tributary of the Oder is the Warthe, into which flows the Netze.

In Sweden, the Clara river, which has its sources in the Dovrefjeld, flows through the Wener lake, after which it is called the Gotha river, and empties, below Gottenburg, into the Cattegat. Its whole length is 322 miles. In Germany the Elbe, rising in the Giant Mountains, crosses Bohemia, Saxony, and Prussia, forms the boundary between Hanover and Mecklenburg and Holstein, and empties into the North Sea. Its length is 713 miles. Its chief branches are the Moldau and Eger, in Bohemia; the Black Elster and Saale, in Prussia; the Mulde, in Anhalt-Dessau; the Havel, in Prussia; the Ilmenau, Luhe, and Schwinge, in Hanover; the Alster, in Hamburg; and the Stoer, in Holstein.

The Weser, formed by the junction of the Werra and Fulda, near Munden (in Hanover), divides Oldenburg and Hanover, and enters the North Sea near the Elbe. Its length is 253 miles; and its chief branches are the Aller (whose principal branch is the Leine), the Wumme or Lesum, Geeste, and Hunte. The Ems, rising in the Teutoburger Wald, empties into the Dollart. Its chief branch is the Haase. The Trave, rising in Holstein, enters the Baltic Sea below Lubec. Its chief branch is the Stekenitz. The Warnow, in Mecklenburg, enters the Baltic Sea below Rostock. Its only branch is the Nebel. The Eider, which has ever formed the boundary between Denmark and Germany since the days of Charlemagne, has its source in Holstein, and empties into the North Sea.

The Thames and Humber (the latter formed by the united rivers Ouse and Trent) in England, and the Tay and Forth in Scotland, enter the North Sea.

The Severn in England, the Clyde in Scotland, and the Shannon and Barrow in Ireland, empty into the Atlantic Ocean.

The Seine, having its sources in Burgundy, near Dijon, and a length of 442 miles, empties into the English Channel. Its chief branches are the Marne, Oise, Aube, Yonne, and Eure.

The Loire, the largest river in France, rising in the Sevnnes, and crossing the centre of the country, has a length of 607 miles, and empties into the Atlantic Ocean, below Nantes. Its chief branches are the Allier, Cher, Indre, Vienne, Sèvre Nantaise, Arroux, Nièvre, and Mayenne.



Falls of the Clyde.

The Garonne, rising in the Pyrenees, and having a length of 416 miles, empties into the Atlantic Ocean, below Bordeaux, where it receives the name of Gironde. Its chief branches are the Dordogne, Tarn, Lot, and Gers.

The Rhone has its sources at the foot of the St. Gotthard, in Switzerland, flows through the Lake of Geneva, crosses the southern provinces of France, and empties into the Mediterranean Sea, west of Marseilles. Its outlets form a delta, called Camargue; its length is 460 miles, and its chief branches are the Saone, Isère, Drome, Durance, Ardèche, and Gard.

Other rivers of France are the Var, Herault, and Aude, emptying into the Mediterranean Sea; the Somme, and Orne, emptying into the English Channel; and the Vilaine, Sèvre Niortaise (into which flows the Vendée), Charente, and Adour, emptying into the Atlantic Ocean.

The Meuse, which rises at the frontier of Champagne and Franche-Comté, crosses Lorraine, Champagne, and the eastern part of Belgium, receives below Gorkum in Holland the name of Merwe, but above Rotterdam is called Meuse again, and empties into the North Sea. Its chief branches are the Sambre, Ourthe, and Roer.

Through Belgium and part of Holland flows the Scheldt, which rises near the frontier of France and Belgium, runs through the west of Belgium, by Ghent and Antwerp, and dividing, forms a delta at its mouth. One outlet, which runs northward into the North Sea, is called East Scheldt; and the other, running southward, is called West Scheldt. The chief tributaries of the Scheldt are the Scarpe, Lys, Dender, and Rupel.

From Switzerland, through Germany, into Holland, runs the Rhine, which has its sources on the east side of Mount St. Gotthard, in the canton of Grisons. It forms the boundary between Switzerland and Tyrol, flows through the lake of Constance, divides France and Germany, is in the neighborhood of Spire 3,000, and below Mentz 2,500 feet wide, and divides within the boundary of Holland into several branches, called Waal, Yssel, Leck, and Old Rhine. Its length is 874 miles. Its principal tributaries are the Mayne, rising in the Fichtelgebirge, and the Moselle, rising in the Vosges, at the frontier

of Lorraine and Alsace. Other branches of the Rhine are, the Neckar, having its sources in the Black Forest, the Nahe, Lahn, Sieg, Wupper, Ruhr, and Lippe.

In Spain are the Ebro, which has its sources in the Cantabrian mountains, forming then the boundary between Old Castile and the Bascyan provinces and Navarre, and crossing Aragon and Catalonia, emptying into the Mediterranean sea. Its length is 405 miles, and its chief branches are the Aragon, Gallego, and Segro; the Guadalaviar, which rises in the province of Aragon, and crossing the province of Valencia, empties into the Mediterranean sea; and the Guadalquivir, which rises on the boundary of Jaen and Murcia, and empties into the Atlantic ocean, a few miles north of Cadiz. Its length is 300 miles. Spain and Portugal are crossed by the Tagus, which rises at the frontier of Aragon and New Castile, and empties, below Lisbon, into the Atlantic ocean, after a course of 552 miles; and by the Duero (in Portugal called *Douro*) which rises between Saragossa and Burgos, crosses Old Castile, Leon, and Portugal, and empties into the Atlantic ocean. Its length is 478 miles. The Minho, which has its sources in the Spanish province of Galicia, forms the boundary between the latter and Portugal, and empties into the Atlantic ocean. The Guadiana, which has its sources in the southern part of New Castile, forms the boundary between the Portuguese province of Algaré and the Spanish province of Sevilla, and empties into the Atlantic ocean. Its length is 483 miles.

The Po, the chief river of Italy, has its sources on the Cottic Alps, crosses Piedmont and Lombardy, has a length of 405 miles, and empties by several outlets into the Adriatic sea. Its chief branches are the Tanaro, Scrivia, Dora, Riparia, Dora Baltea, Sesia, Ticino, Adda, Oglio, and Mincio. The Adige, having its sources in Tyrol, and a length of 321 miles, empties into the Adriatic sea; as do the Tagliamento, Piave, and Brenta, in Lombardy. The Arno (in Tuscany), the Volturno (in Naples), and the Tiber and Garigliano (rising in the States of the Church), flow west, and empty into the Mediterranean sea.

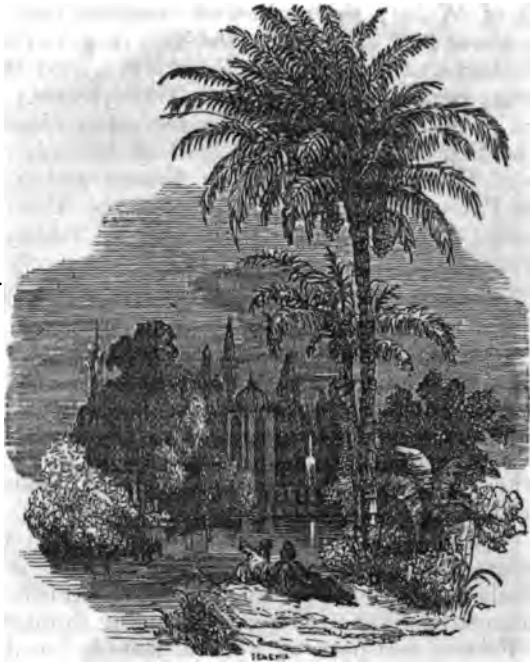
In Turkey are the Marissa, having its sources in the Balkan, a length of 243 miles, and its mouth in the Archipelago; the Karasu or Mesto; the Stromza or Struma (by the ancients called Strymon); and the Vardar (Axius of the ancients), have their mouths in the Archipelago also; while the Drin and Narenta, partly crossing Dalmatia, empty into the Adriatic sea.

Through Germany, Hungary, and Turkey flows the Danube. Having its sources at Donaueschingen, in Baden, it crosses the middle parts of Bavaria, the archduchy of Austria, Lower and Upper Hungary, and dividing the Turkish provinces of Bulgaria and Wallachia, empties into the Black sea. Its length is 1,868 miles, and its chief branches are: the Iller, Lech, Isar, Inn, Altmühl, Nab, and Regen, in Bavaria; the Traun, Enns, March, and Trasen, in Austria; the Waag, Neitra, Gran, Theiss, Leitha, Raab, Drave, and Save, in Hungary; the Morawa, Aluta, Sereth, and Pruth, in Turkey.

The following table will exhibit the proportional lengths, basins, and annual discharge of waters of some of the principal rivers of Europe, the Thames being the unity:

RIVERS.	Length.	BASIN.		Water Discharged.
		Area in Sq. M.	Size.	
The Thames.....	1	5,500	1	1
Rhine.....	4½	70,000	12½	13
Loire.....	4	48,000	8½	10
Po.....	2½	27,000	5	6
Elbe.....	4½	50,000	9	8
Vistula.....	4½	76,000	13½	12
Danube.....	9½	310,000	56	65
Dniester.....	7½	200,000	36	36
Don.....	7½	205,000	37	38
Volga.....	14	520,000	94	80

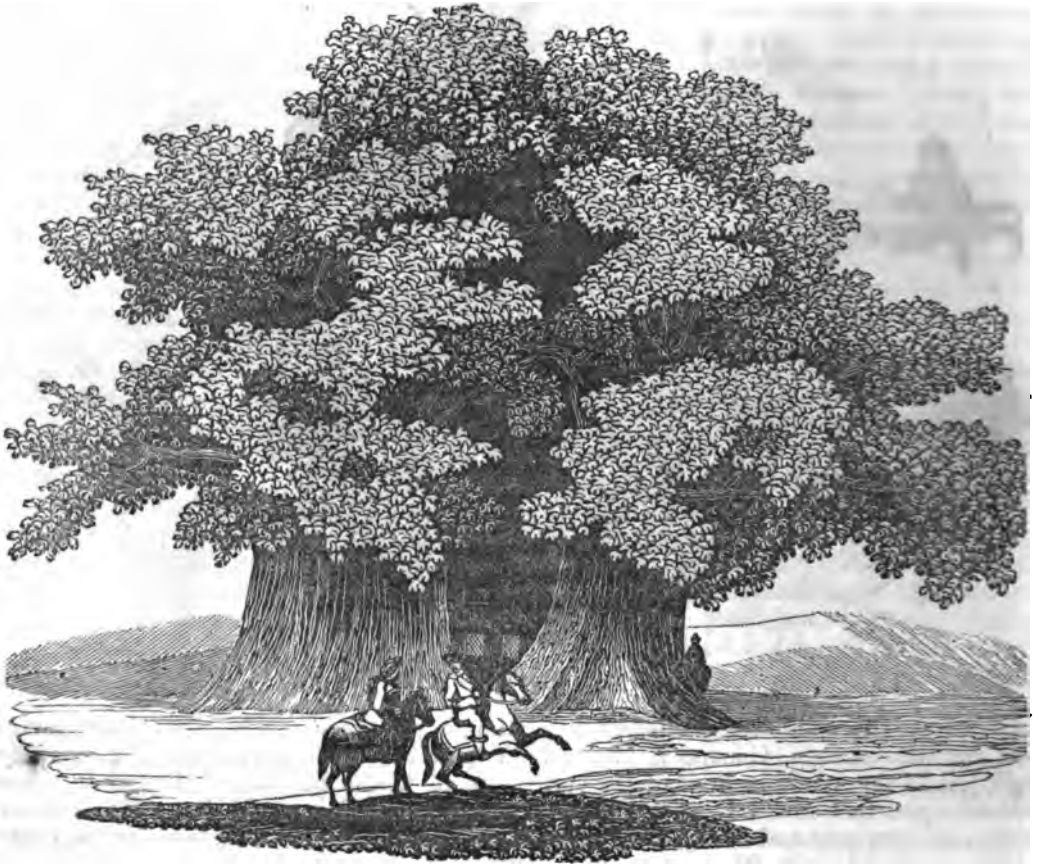
Geology. The geology of Europe has been scientifically developed by Lyell and others. The following parts consist chiefly of primitive or transition formations:—the Uralian mountains; Lapland; nearly all Sweden; Finland and Norway; most part of



Date Palm.

ned, as the necessities of man often force him to raise corn under the most unfavorable circumstances. Generally, however, the parallel of 57 deg. or 58 deg. may be regarded as the northern limit of the cultivation of wheat in Europe; though in some favored spots in Finland it is raised as far north as 60 deg. or 61 deg. The hardier grains, as rye, oats and barley, are cultivated in some sheltered situations on the coast of Norway, as high as 60 deg. 30 min.; but further east, in Russia, their cultivation has not been found practicable beyond 67 deg. or 68 deg. The introduction of potatoes from the New World, which are now widely diffused over almost every part of Europe, has been of peculiar advantage to the northern regions, as they are said to be extremely prolific in parts where corn will hardly ripen.

In ancient times nearly the whole surface of Europe was covered with dense forests. These, however, have in a great measure disappeared in the better cultivated and more populous countries. Germany, Poland, Russia, Sweden, Norway, and some parts of the Austrian Empire, are at present almost the only parts of Europe which contain forests of any very great extent. The natural orders of Amentaceæ and Coniferæ comprise the greatest number of the noblest trees in the woods of Northern and Central Europe. In these regions the oak is the lord of the forest, and often attains to an enormous size. It disappears about latitude 60 deg.; the ash fails at 62 deg.; the beech and lime are seldom found farther north than 63 deg.; or firs and pines beyond 70 deg. The tree that grows in the highest latitude is the dwarf birch, and the last plant met with towards the pole, in Europe, is considered to be the "red snow," (*Palmetta nivalis*), a cryptogamic species. It must not, however, be supposed that the vegetation of Northern Europe is confined to those regions. On the Alps, the Pyrenees, and other mountain ranges, similar products are met with at various elevations, the temperature of which corresponds to that required by the individual; and on the declivity of *Ætna*, at different heights, the flora of the torrid zone, and that of the Arctic Circle, are both met with. But a marked difference from that of the rest of Europe takes place in the vegetation south of latitude 44 deg. The mountains there are covered with chestnut woods; evergreens take the place of oaks, and the maritime and stone pines of other coniferæ. The plane-tree, flowering-ash, carob, laurels, lentisks, oleanders, cistus, and a host of dyeing, medical,



Great Chestnut Tree of Mount Etna.

and aromatic plants abound, and the surface of the earth is almost continually covered with a carpet of brilliant and odorous flowers.

Wild Animals. The animal kingdom in Europe is less varied than the vegetable. Ac-

ording to Cuvier the total number of species of the mammalia inhabiting this portion of the earth, is only about 150, and of this number only 58 are peculiar to Europe. The most formidable animals are the white bear, confined to the polar regions; the brown bear, once common throughout the continent, which now inhabits the Alps, Pyrenees, and other remote mountainous and wooded countries; the wolf and the wild boar. The largest animals, (exclusive of the whale, walrus, etc., which inhabit the northern seas,) are the elk and reindeer, the latter of which is used as a beast of burden in the north. These kinds of deer give place



Fox Catching Crabs.



Ibex.



Chamois.

in central Europe to the red deer and roebuck, and these again in the Alpine regions to the chamois and ibex. The other principal wild animals are the lynx, met with chiefly in the south; the wild-cat, fox, martin, otter, beaver, pole-cat, glutton, porcupine, hedgehog, various kinds of weasels, squirrels, hares, rabbits, rats, mice, etc.



Squirrel.

Domesticated Animals. The domestic animals deserve more notice. The black cattle of Europe have attained to the highest perfection. The sheep is universally diffused. The chief races at present existing, are the Spanish "merino," Cretan, Wallachian and English. The merinos are most celebrated for their wool, but taken altogether the English are the most valuable. Goats are also very numerous, and the domestic hog, evidently descended from the ancient European wild boar, is omnipresent. The horses of Eu-



Shepherd and his Sheep.



Arabian Horse.



Raven.

rope are unrivalled in speed, strength and courage. Some naturalists suppose them to be of Tartar breed, but there is no proof of such origin. The English heavy horses are unequalled for draught, and the race-horses for speed and bottom. The latter, and the hunters, have been crossed with Arab horses, the first of which was imported so late as the reign of James I. The ass of southern Europe is a fine and noble animal, but degenerates sadly in more northern latitudes. It is much valued for the breeding of mules, the sure-footedness and hardiness of which render them highly useful. The domestic cat seems to be a lineal descendant of the wild species.

Birds. The bird tribe is much more varied than that of quadrupeds. As many as 400 different species have been enumerated; but many of these are only birds of passage, and are indigenous to other lands. Four species of vulture inhabit the Alpine ranges, but are seldom seen in the higher latitudes. In the rocky and mountainous parts of the north their places are supplied by enormous eagles, falcons, large owls, and other birds of prey. Most of the birds of the Arctic region are aquatic. In the south there is a great intermixture of the birds of Africa and Asia, as the Balearic crane, pelican, flamingo, etc. The common sorts of game are generally diffused all over Europe; but the red-grouse is confined to Scotland, and is said to be the only species peculiar to Great Britain. Bustards abound in some parts of Turkey and Greece. In general, European birds cannot boast of very brilliant plumage, but they excel all others in melody. The peacock and the common domestic fowls have been introduced from the East, the turkey from the West.

Reptiles, Fish, Insects. The family of reptiles is not very numerous, and few are either large or venomous. In the Mediterranean a very delicate species of turtle, (*testudo caretta*) is found, and in some of the Austrian lakes, the *proteus anguinus*, a singular link between reptiles and fishes. Of the latter named class of animals,



Peacock.

the principal are the herring, cod, whiting, mackerel, haddock, mullet, anchovy and tunny in the ocean and seas; and the salmon, trout, carp, perch, etc., in fresh waters. The anchovy and tunny are almost confined to the Mediterranean, where their capture forms a valuable branch of industry. Crustacea are particularly numerous in the north, and the mollusca in the south; the latter are particularly abundant and various in the gulf of Taranto, anciently so famed for the *murex*, affording the Tyrian dye.

In some parts of Europe, scorpions and tarantulas are sometimes troublesome; mosquitoes infest the south, and the gnat and gadfly the middle regions. Europe is generally, however, considered by naturalists as the grand region of butterflies. The European "annelides" include the medicinal leech, so plentiful in the pools of Germany, Sweden and Poland. Radiated animals, zoophytes, etc., are particularly abundant on the southern coasts, where some of them, as the "actinias," are used as food, and where the coral fisheries employ many hands.



Coral Fishery.

Political Divisions. Europe comprises 55 *Independent States*, of which 33 belong to Germany, (exclusive of Prussia and Austria, the grand-duchy of Luxemburg, and the duchies of Holstein and Lauenburg), seven to Italy, and two to the Netherlands (Belgium and Holland being called thus in a general signification).

Of those 55 *States*, seven have a *republican*, and the remaining 48 a *Monarchic* form of government.

The seven *Republics* are: the Helvetic and the Ionian Republics; the free German cities, Hamburg, Bremen, Lubec, Frankfort; and San Marino.

Among the 48 *Monarchic States* are:—

Four *Empires*: France, Russia, Austria, and Turkey, (for the Grand Seignior is in some respects considered as successor of the ancient Greek emperors, and, partly for this reason, entitled emperor by the Europeans).

15 *Kingdoms*: Great Britain and Ireland, Portugal, Prussia, Sweden and Norway, Denmark, Spain, Greece, Two Sicilies, Sardinia, Holland, Belgium, Bavaria, Saxony, Hanover, and Wurtemberg.

1 *Electorate*: Hesse-Cassel.

7 *Grand Duchies*: Tuscany, Saxe Weimar, Mecklenburg-Schwerin, Mecklenburg-Strelitz, Oldenburg, Hesse-Darmstadt, and Baden.

9 *Duchies*: 3 Saxon, 2 Anhaltian, Brunswick, Nassau, Modena, and Parma.

10 *Principalities*: 2 Reussian, 2 Lippian, Hohenzollern-Hechingen, Hohenzollern-Sigmaringen, Schwartzburg-Rudolstadt, Schwartzburg-Sondershausen, Waldeck, and Liechtenstein: (the other principalities in Europe are not independent).

1 *Landgraviate*: Hesse-Homburg.

1 *Ecclesiastical State*: the States of the Church.

Russia comprises the most extensive territory; the principality of *Liechtenstein* is the smallest state in population; and *San Marino* the smallest in extent among the European States.

Origin of the existing Nations and States of Europe.—For the origin of the existing States and Nations of Europe, we must go back sixteen centuries, to the commencement of that influx of barbarous tribes from the east and north, by whom the Roman empire, after long struggles, was finally overwhelmed and extinguished.

In the third century of the Christian era, the Roman empire included, besides Asia Minor, Syria, Egypt, and northern Africa, all continental Europe south of the Danube and west of the Rhine; also the province of Dacia (now Moldavia and Wallachia), north of the Danube, and all that portion of Great Britain south of the Scotch mountains. East of the Rhine dwelt the Germans, divided into many tribes, among the most formidable of whom were the GOTHs, who, when they first became known to the Romans, occupied the regions north of the Black Sea. About A. D. 250, they commenced the invasion of the Roman empire, crossing the Danube and the Black Sea and ravaging Greece and Asia Minor; the FRANKs and the ALLEMANNI (from whom comes the French name for Germany—*Allemagne*) at the same time crossing the Rhine into Gaul (France).

Partly by arms and partly by arts, especially by recruiting the Roman armies from among the barbarians themselves, these first invaders were repelled; but the Goths succeeded in establishing themselves along the north bank of the Danube, in the former Roman province, when they were converted to Christianity, which, in the mean time, had become the religion of the Roman Empire. From this position, by a new movement, commencing far to the east, the Goths were again, about A. D. 400, precipitated upon the Roman Empire, which in the mean while had been divided into two governments, the Empire of the West, or Latin Empire, with Rome as its chief city, and the Empire of the East, or Greek Empire, of which Constantinople was the capital.

The HUNS, a Tartar nation, whose primitive seats were on the borders of China, having been driven, by unfortunate wars, to the westward, attacked the ALANS, who dwelt between the Volga and the Don, and drove them upon the Goths, who were thus again compelled to cross the Danube. A. D. 378 the Visigoths, or Western Goths, conjointly with the Huns and Alans invaded Thrace, and defeated the Roman emperor Valens at Adrianople. Their king *Alaric* was invested with the government of Illyricum (Dalmatia and the southern provinces of Turkey). In 403, he invaded Italy, twice threatened Rome with destruc-

ion, and in the year 410 took it and gave it up to plunder. Shortly after he died, when his successor, Athaulf, made peace with emperor Honorius, and conducted his Visigoths to Gaul or France; and in 414 to Spain; where the Visigoths soon became the ruling nation, founding an empire which also comprised Guyenne, Gasconne, and Languedoc, in France.

Other Germanic tribes, had moved westward, and, crossing the Rhine in 406, had settled themselves permanently in various parts of the Roman empire. The VANDALS had their primitive seat in the north of Germany, between the Elbe and Vistula; but, in the first half of the 4th century, they migrated to Hungary, whence they marched successively into France, Spain, and Africa. The BURGUNDIANS, residing in the vicinity of the Vandals, were compelled by the *Gepides* (a Gothic tribe) to move from the mouth of the Vistula into Germany, and afterward into Switzerland and the south-eastern provinces of France. The SUEVES, who had their primitive seat near the Elbe, joined the Alans and Vandals on their march to the south-west of Europe, and took possession of the right bank of the Rhine, called from them Suabia.

In 426, the last Roman troops withdrew from *Britannia*, or England, which was afterwards invaded and ravaged by the Scots. The Britons thereupon asked the assistance of two tribes of Germany, the SAXONS, occupying the present kingdom of Hanover and the duchy of Holstein, and the ANGLES, inhabiting the present duchy of Sleswick. They readily complied with the request, went over to Britain, and drove back the Scots; but, instead of returning to Germany, they took possession of the country. Britain was afterwards divided by them into seven small kingdoms, called the Saxon *Heptarchy*. But the whole western portion of the Island was still held by the Celtic race, who had independent principalities in *Cornwall*, *South Wales*, *North Wales*, *Cumberland*, and *Strath Clyde*. The Scots of the same race with the Irish, and the Picts of uncertain but probably of Teutonic origin, held the whole of Caledonia. Thus, A. D. 700, the island of Great Britain was divided among some fifteen chiefs, engaged in perpetual war.

The Huns, under their king *Attila*, had meanwhile reappeared on the European theatre. At the head of 700,000 men belonging to various subject nations, Attila marched from Hungary into Germany, ravaging and plundering everywhere. He then invaded France; but in a bloody battle at Chalons on the Marne, in 451, he was defeated; after which he invaded Italy, where he died in 452. After his death, his empire was dissolved, and the Huns, dispersed by degrees among other nations, disappeared as a distinct community.

In the year 476 Italy, with Rome itself, was entirely subjugated by *Odoacer*, leader of a northern tribe, called the *Heruli*; and it remained under his dominion for fourteen years, till he was conquered by the Ostrogoths or Eastern Goths.

The *Ostrogoths*, who had transferred their seat into Bosnia and Thrace, were on good terms with the rulers of the Eastern empire at Constantinople; and *Theodoric*, their king, made to the emperor Zeno the offer to conquer Italy for him. His proposal was agreed to, and Theodoric emigrated with all the Ostrogoths to Italy, defeated Odoacer in three battles, made himself master of the whole country, and in 490 was, by emperor Anastasius, successor of Zeno, acknowledged as *king of Italy*. But after his death, which occurred in 526, the emperor *Justinian* sent to Italy two eminent commanders, Belisarius and Nar-ses, who, after a struggle of eighteen years, made of Italy a province of the Eastern Empire.

Meanwhile the FRANKS, in the period from A. D. 237 to A. D. 375, got possession of the northern part of Gaul, from them called France. Meroveus, who died in 458, was the founder of the dynasty of the *Merovingians*, reigning in France for about three hundred years. The most eminent of the Merovingians was *Clovis*. He drove the Romans out of France, subdued the Armoricans in Bretagne, subjected the Burgundians to tribute, wrested considerable tracts of land from the Visigoths in the south of France, and extended his conquests northward to the Rhine. Clovis, having married a Christian princess, and attributing his success to the God whom she worshipped, determined to become a Christian himself, and in 496, he was baptized, with three thousand of his subjects, and anointed king of the Franks, at Rheims, by the bishop Remigius. After his death in 511, France was divided among his four sons. This impolitic proceeding proved fatal to the common interest; the more so, as it was followed by subsequent divisions. At last, after the death of king Charibert of Paris, in the year 569, France, or rather the Frankish

empire, was divided into three distinct States, viz. *Austrasia*, or the eastern empire, comprising the north-east of Gaul and the southern half of Germany, between Tyrol and the forest of Thuringia, and between the Rhine and the Inn rivers; *Neustria*, or the western empire, comprising the north-west of Gaul, between the Waal and Loire rivers; and *Burgundy*, or the southern empire, comprising Provence, parts of Aquitania, parts of Switzerland and Alsace. The capital of Austrasia was *Metz*, that of Neustria, *Soissons*, and that of Burgundy *Orleans*. The Frankish kings used to invest eminent men (called *Majores domus*, or Heads of the House) with the superintendence of the domains and fiefs of the crown, and with the command of the royal military forces. One of them had the superintendence in Austrasia, another in Neustria, and a third in Burgundy. The last kings of the Merovingian dynasty being weak, the *Majores-domus* came soon to be considered as the actual rulers. In 687, *Pepin of Herstall*, the latter name derived from his estate near Liege, Major-domus of Austrasia, invested with the superintendence also of the other Frankish kingdoms, assumed the title of "duke and prince of the Franks." He was succeeded in his dignity by his son *Charles Martell*, renowned for his brilliant and decisive victory over the Moors or Arabs, between Tours and Poitiers, in 732. The son and successor of Charles was *Pepin the Little*, who was indeed a very small man, but of mighty spirit, and of great strength. The weakness and inaptitude of the Merovingian kings had now become too obvious; and the last of them, *Childeric III.*, was deposed, in 752, by an assembly of the states held at Soissons, and was exiled to a monastery; while *Pepin the Little* was elected king of the Franks, and anointed by the bishop *Bonifacius*. With him began the dynasty of the *Carlovingians*, a name derived from *Pepin's* son, *Charles the Great*, or *Charlemagne*.

The *Visigoths*, since their inroad into *Spain*, had established their power there permanently, and extended it, in the course of time, over all parts of the peninsula. After 531, their capital and royal residence was *Toledo*. But as soon as the wars with other tribes and nations had ceased, there arose civil wars and other intestine commotions, which caused one party to call on the *Moors* or *ARABS* (who then had lately conquered the whole northern coast of Africa) for assistance. The latter acted the same part as the Saxons and Angles had done in Britain. Scarcely had they set their foot on the Spanish ground, in 711, when they attacked the *Visigoths* and defeated them completely, in a battle at *Xeres de la Frontera*, which lasted nine days. The fate of *Roderic*, the last king of the *Visigoths* in Spain, was never known; his horse and weapons were found near the field of battle, but his body was nowhere to be seen. *Pelagio*, a prince of the blood-royal, took command of the *Goths* who had not been slain by the *Moors*, led them into the mountainous region of *Asturias*, and founded there a little kingdom, the boundaries of which his successors enlarged, in the course of time. But for several centuries, the *Moors* possessed the greatest part of the Spanish peninsula.

The *Moors in Spain* were in the beginning ruled by governors of the *Caliphs* reigning at *Damascus*, but in 756 the Arabian prince *Abderrahman* founded an independent empire in Spain, whose capital was *Cordova*, (north-east, and 120 miles distant from *Cadiz*), which soon rose to be a splendid city, and at one time, it is said, numbered 1,000,000 inhabitants.

During the migration of nations, many countries in the east of Europe were depopulated, and this circumstance gave occasion to the *SLAVES*, or Slavonic tribes to move farther to the west, and occupy the abandoned seats. The main body remained in Russia and Poland, but some tribes peopled Bohemia and others settled themselves in the German countries bordering on the Baltic Sea. Lower Hungary and Austria were occupied by the *Avars*, who had their primitive seat between the Black and Caspian Seas; *Dalmatia*, and other countries in the vicinity, by the *Croates* and *Servians*; and Bulgaria, by the *Bulgarians*, a Tartar tribe, who in the 5th century had emigrated from their primitive seat between the Volga and Ural rivers.

The *Lombards* (a Suevian or German tribe, at first having their seat near the middle course of the Elbe), who had once already been called on for assistance by the imperial governor *Narses*, returned to Italy in 568, headed by their valiant king *Alboin*, wrested from the Greeks the northern part of the Italian peninsula, since called Lombardy, and got possession of most of the other parts. They even threatened Rome, but pope *Ste-*

phen III, called on the Frankish king, Pepin the Little, for help, and he defeated the Lombards, and compelled them to cede to the holy see the maritime country on the Adriatic, which they lately had conquered. In this way the *pope's temporal power* was established, and the foundation laid of what is now called the States of the Church. This occurred in 755, but several centuries elapsed before the dominion of the pope was fully realized. In 774 new differences between the pope and the Lombards brought on the intervention of Charlemagne, who vanquished the Lombards completely and embodied their kingdom with that of the Franks. Lower Italy (comprising the continental part of the present kingdom of Naples) and the Island of Sicily remained under the sway of the Greek emperors until 842, when Sicily and Calabria came into the possession of the Arabs.

The European territory of the *Eastern empire*, or of the Roman emperors residing at Constantinople, had thus been greatly reduced; nevertheless, it yet ranked highest among the Christian kingdoms by its civilization, wealth, and flourishing commerce. Constantinople was the largest and handsomest city in Europe, and the imperial court displayed much splendor.

Meanwhile the long-nourished hostile sentiments between the Franks and their next neighbors in the north, the *Saxons*, had finally led to an eruption, which was followed by a war of more than thirty years; when a final treaty of peace was concluded, according to which the Saxons acknowledged the sovereignty of Charlemagne, and adopted the Christian faith.

In 778, the Moorish governor of Saragossa requested Charlemagne to lend him his assistance against the Emir Abderrahman. Accordingly, a Frankish army was sent to Spain, and this campaign terminated in the annexation of all the country north of the Ebro to the Frankish empire. This new acquisition was called the *Spanish mark* (*margraviate*). A war against the Danes was terminated by a treaty of peace in 810, which stipulated that the *Eider* was to be the *boundary* between the Danes and Franks; and this river has ever since been the boundary between Denmark and Germany. To secure the boundaries in the east and south-east, against the Avars, Charlemagne founded there the *Avarian mark*, comprising what is now called the arch-duchy of Austria. In the year 800 when Charlemagne happened to be at Rome, the pope (who for many substantial services, was highly indebted to him) placed the *imperial crown* upon his head, and thus reviving the *Western Roman Empire*. Charlemagne died in the year 814, and was succeeded by his son *Louis*, surnamed *the Pious*, but in point of mental power almost the reverse of his father. Louis died in 840, and left his dominions to his three sons, Louis, Charles, and Lothaire, who divided them by a treaty, concluded at Verdun in 843, in the following manner:

Lothaire acquired the *IMPERIAL CROWN* and the *kingdom of ITALY*, and besides this a long tract of land situated between France and Germany, viz: *Provence, Dauphiny, Burgundy, Alsace, Lorraine*, and the *Netherlands*. But his race became extinct even so early as the year 875; and the German kings, his nearest relations, became the heirs of his rights.

Charles, surnamed *the Bald*, acquired *FRANCE*, which was ruled by his descendants until the year 987, when the *Capetians*, from whom descended the *Bourbons*, supplanted the race of the *Carlovingians*.

Louis, surnamed *the German*, acquired *Germany*, which since that time has ever been separated from France. After the death of his last descendant, in 911, an *elective* empire was established, which continued so late as 1806. But the imperial power soon declined; and Germany became ultimately divided into a great number of states, locally independent, and over which the imperial authority exerted but a slight restraint.

As for *England*, one Saxon prince seems generally to have arrived at an ascendancy over the rest. He who attained to this dignity was known by the official title of *Betwalda*. In the course of three hundred years, seven chiefs attained this dignity, which, at the beginning of the ninth century, was held by Egbert, king of Wessex, who had long resided at the court of Charlemagne. This dignity, with additional prerogatives, thenceforward remained in his family, but without any such extensive alteration in the constitution of the kingdoms as is generally supposed; for, long after his time, the inferior kings still

held a limited authority. As yet the Saxons seem not to have been much improved beyond their German ancestors, either in arts, civility, knowledge, humanity, or obedience to the laws.

In Egbert's time commenced the incursions of the NORMANS and Danes, daring freebooters from the coasts of Norway, Sweden, and Denmark, who established themselves in many maritime parts of Great Britain and Ireland, and at times overran the whole country. They also made conquests on the coasts of France, where, at the end of the ninth century, they obtained the province of *Normandy*, and they even established principalities in Italy, where they were first introduced at a somewhat later period, as mercenary soldiers. King *Alfred the Great* (who reigned in England from the year 871 to 901) opposed them with good success; but a hundred years after his death, the Normans again broke into England, and were now completely victorious; so that in the period from 1016 to 1042 three Danish kings governed the country in succession (Swen, Canute, and Hardicanute). In the year 1042, the Normans or Danes were driven out of England, and another Saxon king, *Edward II.*, surnamed *the Confessor*, was placed upon the throne. Meanwhile the Normans had settled in France, and acquired there, as already mentioned, a large tract called *Normandy*. William, duke of Normandy, who was related to king Edward, made claim to the English throne, and after Edward's death, which occurred in 1066, he invaded England, at the head of sixty thousand men, defeated his rival Harold, son of Count Godwin (for Edward had left no children), in the battle of Hastings, on the 14th of Oct. 1066, and became king of England. He was now called *William the Conqueror*, and is the ancestor of the still reigning royal family of Great Britain.

The little Christian kingdom of Asturias, founded by Pelagio in Spain, was by this time considerably enlarged, and called the *Kingdom of Leon*. The *Spanish mark*, conquered by Charlemagne, having been divided into two counties, Barcelona and Navarre, and the count of *Navarre* having assumed the royal title, there were now two Christian kingdoms in Spain; out of which grew, in the course of time, the kingdoms of *Aragon*, *Castile*, *Galicia*, the principality of *Catalonia*, etc. PORTUGAL, first a province of the united kingdoms of Castile and Leon, became in 1139 an *independent* kingdom. The power of the Moors in Spain was more and more restricted by the conquests of the Christian kings, till in 1492 *Granada*, the last Moorish possession, was conquered by the Queen *Isabella* of Castile, and king *Ferdinand* of Aragon. At this time the kingdom of Aragon comprised not only Aragon, but the whole north-east part of Spain, while the kingdom of Castile comprised all other parts; and as Ferdinand and Isabella were united by marriage, all *Spain* came, after their death, under the sway, first of their daughter *Johanna* (or rather their son-in-law Philip), then of their grandson, the celebrated king *Charles I.* (or *Charles V.* as emperor of Germany), who entailed the Spanish crown on his descendants.

In the beginning of the tenth century, while western Europe was ravaged by the Normans, the MAGYARS, the ancestors of the present Hungarians, appeared in the east and spread terror and devastation in Germany and Italy. They continued for a century to be the terror of Europe; but at last, under their chief Geyza, they began to apply themselves to agriculture. Stephen, the son of Geyza, about A. D. 1000, introduced at the same time Christianity and the royal dignity, and subsequently the Hungarians became the great barrier of Europe against the Ottoman Turks.

Othman, the founder of that famous dynasty, was a shepherd and a robber, belonging to one of the Turkish tribes by whom Asia Minor had been for centuries overrun. He pillaged Bythinia, and gradually (1299–1326) made himself master of a part of that province. His grandson Amuranth I., by whom the Janizaries were first established, subdued Romania and many of the Slavonic tribes between the Danube and the Adriatic (1360–89); and finally Mohammed II. (1451–1481) took Constantinople, subdued the remnants of the Greek empire, and spread consternation throughout Europe. Even for two centuries subsequent to this period, the Turks were regarded as the common enemy of Christendom.

Since the Turkish invasion, Europe has never been attacked by any external enemy. On the contrary, the people of Europe have, within the last four centuries, themselves become the conquerors and civilizers of a large part of Asia and Africa, as well as of America.

Civilization. All Europeans are *civilized*, except the Laplanders, Samojedes, some Kalmuc tribes, and the Gipsies (the latter chiefly in Hungary, Russia, Spain, and England), who are to be regarded as half-civilized; and as civilization has prevailed in this region for many hundred years, Europe is not only the most enlightened, but also the best cultivated grand division of the earth. By its emigrants, America, and all the civilized countries of other parts of the world, have been peopled. Husbandry is at the highest pitch of improvement in England, Germany, Belgium, Holland, Switzerland, and Lombardy. In manufactures and commerce, Great Britain excels all other empires; but in many branches of manufactures, it finds a formidable rival in France, Belgium, and Germany. The states of Europe, next after Great Britain in commercial importance, are: France, Germany, Holland, Russia, Austria, etc. The improvement of all the sciences, and the finest productions of genius, belong exclusively to the Europeans. In almost all European countries, numerous universities, colleges, and other schools, provide for every branch of learning; and, on the other hand, the fine arts have their chief seat in Europe. All the great painters, sculptors, artists in music, architects, and poets of ancient and modern times, were Europeans, or their descendants. There are to be found, it is true, huge monuments of ancient architecture in Africa, Asia, and America, but compared with the sublime works of the ancient Greeks and Romans, with the Gothic buildings of the middle ages, and even with the performances of modern architects in Europe, they must yield the palm. Most of the European countries are noted for their excellent roads (above all England), and only Turkey and Hungary are without them. Canals are most numerous in England, but are found also in Russia, Holland, Belgium, France, and Sweden. Besides this, England is crossed in almost every direction by railroads which are now also to be found in every country of the continent.

Newspapers of Europe. Issued at Paris, 169; London, 97; Berlin, 79; Leipsic, 68; St. Petersburg, 36; Vienna, 24; other places, 883; whole number of newspapers in Europe, 1,356. The "Constitutionnel," published at Paris, has a list of 30,000 subscribers; the "Presse," 24,000; the "Patrie," 14,000; the "Journal des Debats," 11,000; the "National," 5,000; "The London Times," 24,000.

Productive Industry. Since the close of the great European war by the overthrow of the elder Bonaparte, things in Europe have assumed an aspect such as they have never exhibited before, and which promises in the end, to work an entire revolution in the social condition, not only of Europe but of the whole world. Previous to the period above named, the industry of trade and manufactures was principally confined to England and Holland, and the production of wealth seemed to be regarded as a very inferior concern by all the great nations of the continent. At present, the grand strife seems to be which nation shall surpass the other in productive arts; and although immense military establishments are still kept up at a vast expense, the disinclination to make war upon each other is very strong among the European states. They employ their arms against inferior and semi-barbarous nations; England against the Afghans, Chinese, Caffirs and Burmans; France against the Arabs and Berbers of Algiers, and Russia against the Circassians; but they show no disposition to make war upon each other. The contests in which they indulge among themselves, relate rather to the engrossment of trade, and the extension of markets for the produce of their own domestic industry.

2. **Shipping.** The following statement of the tonnage belonging to the different states of Europe in 1843, may furnish an idea of the respective extent of their maritime commerce. It is worthy of note that the city of New York owns as much shipping as the whole kingdom of France, and much more than any other state of continental Europe. The tonnage of all, or most of these nations has considerably increased in the last ten years. That of Great Britain, exclusive of her colonies, at the beginning of 1852, was 3,460,656 tons, but no other European nation has increased in any thing like the same proportion.

	Tons.		Tons.
Great Britain.....	3,047,418	Turkey.....	182,000
France.....	589,511	Sardinia.....	167,360
Norway and Sweden.....	471,772	Denmark.....	153,408
Holland.....	275,084	Greece.....	137,558
Prussia.....	222,094	Portugal.....	80,525

	Tons.		Tons.
Spain.....	80,000	Mecklenburg.....	46,260
Bremen.....	68,052	Roman States.....	38,000
Hamburg.....	57,102	Belgium.....	27,416
Hanover.....	56,682	Tuscany.....	25,512
Russia.....	50,705	Lucca.....	20,000
Ionian Isles.....	48,662	Lubeck.....	4,752

3. *Five Great Powers.* The five great powers of Europe are, Britain, France, Russia, Austria, Prussia; Prussia is far inferior to the others in extent and population, but it has lately attained an increase of influence through its position at the head of the Zollverein, or Customs Union of Germany. Britain is the richest, and her navy is far superior. Russia is the strongest in a military point of view. Of all the states of Europe, it is these five alone who substantially retain the right of making war on other states; and even these five are a great check upon each other, as hardly either of them would venture upon a war with any other power if opposed by all the rest.

III. BRITISH EMPIRE.

Within the last hundred years the British empire has obtained an extension and development which renders it, all things considered, the most powerful state on the face of the globe. And what is not less remarkable, it has attained this greatness, notwithstanding its loss, during the same time, of the American colonies, now the United States of America, which are fast growing up into a formidable rival.

The British Empire includes

1. THE UNITED KINGDOM OF GREAT BRITAIN AND IRELAND, whose inhabitants, or a part of them, by the share they have in the election of members of the House of Commons, alone constitute the sovereign nation, to which all the other parts of the empire stand in a subordinate position, though some of them possess, to a greater or less extent, the control of their own domestic affairs.

2. THE EUROPEAN DEPENDENCIES,—*Heligoland*, opposite the mouths of the Elbe and Weser; *Gibraltar*, at the entrance of the Mediterranean; *Malta*, in the middle of that sea; and the *Ionian Islands*, on the coasts of Greece.

3. THE NORTH AMERICAN COLONIES, including the *Hudson Bay Company's Territories*, *Canada*, *New Brunswick*, *Prince Edward's Island*, *Nova Scotia*, and the *Bermudas*.

4. THE WEST INDIA COLONIES, including the *Bahamas*, a large part of the *Carribee Group*, *Jamaica*, *Trinidad*, etc., *Honduras* in Central America, and *British Guiana* in South America.

5. THE AFRICAN COLONIES, *Gambia*, *Sierra Leone*, *Settlements on the Gold Coast*, the *Cape of Good Hope*, *Natal*, etc.

6. BRITISH INDIA, a vast empire, which is constantly extended by new conquests.

7. THE ORIENTAL POSTS AND COLONIES,—*Aden*, at the entrance of the Red Sea, *Mauritius*, in the Indian Ocean, *Ceylon*, *Singapore*, *Hong Kong*, *Labuen*, etc.

8. THE AUSTRALIAN COLONIES,—*New South Wales*, *Victoria*, *Southern Australia*, *Western Australia*, *Van Diemen's Land*, *Norfolk Island*, *New Zealand*.

9. VARIOUS ISLANDS, in the South Atlantic, and Pacific, viz. *Falkland Islands*, *Auckland Islands*, *St. Helena*, etc.

The total area of all these possessions and colonies is estimated at 5,000,000 square miles, and the total population at 150,000,000 inhabitants, of almost all the known races, languages, and religions, and including portions of all the various climates and quarters of the globe. Indeed, it has been exultingly remarked, that on the British Empire the sun never sets.

Origin and Policy.—The founders of the British Empire were the inhabitants of the island of Great Britain, 90,000 square miles in extent, with a present population of about 21,000,000. All the other parts of the empire, except a few islands originally colonized by Englishmen, were acquired by conquest. Such was the case even with Ireland, of which the native inhabitants were long regarded as foreign barbarians; nor, till very recently,

were any political rights enjoyed by the great bulk of the native Irish. The exclusion, indeed, had ceased to be founded on race; but the denial to Catholics of political rights amounted, in substance, to an exclusion of the native Irish, who adhered with few exceptions to that faith. Since the revolt of the North American colonies (now the United States of America), occasioned by the attempt of the mother-country to draw the reins of authority too tight, and especially within the last twenty years, the policy pursued towards the subordinate portions of the empire, has been greatly liberalized. The Irish have, by degrees, acquired almost all the rights of British citizens, though they continue to complain loudly of certain disabilities and inferiorities to which, on the score of religion, they are still subjected. Since the passage of the Reform Bill, in 1834, the spirit and method of the administration of the British colonies, have undergone a complete revolution. The old fashioned colonial policy taught that the interests of the colonies were to be made entirely subordinate to those of the mother-country. Hence great restrictions were formerly placed upon the trade and industry of the British Colonies, with the avowed object of favoring, at the expense of the colonies, the trade and manufactures of the mother-country. This policy has been almost, if not indeed wholly, renounced. The Colonial Tariff Bill, introduced into Parliament and carried through by Sir Robert Peel, has placed the Colonies, in this respect, about on a level with the mother-country. This spirit of liberality has been extended even to India, a disposition being exhibited to bring forward the more influential natives and attach them to British interests, by giving them some share in the administration of affairs. Throughout the British dominions, in whatever part of the globe, that great and important instrument, the freedom of the press, is in full operation; but it is only within about ten years past, that the press has become free in India and the Colonies.

2. *Government and Politics.* — The government of the British Empire is nominally a monarchy, but it has ceased to be so in reality. The queen is a mere puppet in the hands of the ministry, with no mind and no opinion of her own. It was lately observed in the *Times* newspaper, the leading journal of the kingdom, in reference to certain changes in the commercial policy of the country, that the Queen's private opinion (if she had any) upon the question, was a matter of far less importance or interest than the private opinion of Miss Martineau; for Miss Martineau's opinion might have weight in some quarters, whereas, the Queen's opinion would have no weight with anybody. Since the accession of the house of Hanover, the regal element in the government has been constantly declining. George III. was able, occasionally, to exercise some personal influence by playing off one political party against the other. The present queen, like her father, is a merely nominal sovereign; nor is it likely that any future king will ever recover the slightest shadow of authority.

The control of the government, which rests with the Parliament, is in the hands of a small class of wealthy men. The Parliament consists of two Houses, that of the Lords, including the bishops, and the Commons or Lower House. The number of voters for members of the Lower House, with which the selection of ministers substantially rests, is about 1,000,000; but a majority of the members are chosen by a small minority of the voters; and of that minority the larger part vote as their landlords and patrons command, or else sell their votes to the highest bidder. The number of really independent voters is quite small. In the country, the tenants-at-will, who constitute the largest class, are obliged to vote as their landlords require; and in the towns, the shop-keepers and mechanics are very much under the control of their employers and wealthy customers. The voting is *viva voce*. An attempt has been made to introduce voting by secret ballot, but that is resisted, lest the voters might thus be able to conceal their vote and follow their own choice, instead of that of their landlords.

The actual administration of the government, though carried on in the name of the reigning king or queen, is in the hands of certain high officers, who compose what is called the Ministry. These officers are nominally appointed and dismissed at the pleasure of the Crown; but in reality they are solely indebted for their offices to their ability to carry, with them, in support of their policy, a majority of the House of Commons; in failure of which they resign, as a matter of course; whereupon the government passes to more powerful parliamentary leaders. Of these ministers, the chief is the *First Lord of the*

Treasury, whose nominal duty is the receiving and issuing of the public money, while his actual station is that of leader of the administration; he is the first who is appointed in any ministry, and generally selects all the other members, according to his own views of their abilities, or of the influence they possess in the country or in Parliament; and any changes afterwards made are generally at his suggestion, or at least with his full assent. Next is the *Lord High Chancellor*, who presides in the highest law court of the kingdom, and is Speaker of the House of Lords; he is chief adviser in all that relates to the laws of the country; and has the disposal of a great number of clerical and law offices. After him are the principal secretaries of state, who are five in number, each having a separate charge; the first is Secretary for the Home Department, after whom are the Secretaries for Foreign Affairs and for the Colonies, the Secretary at War, and the Secretary for Ireland. These, with the Chancellor of the Exchequer, and several others of the high officers of state, form what is called the *Ministry*, the Cabinet Council, or briefly the *Cabinet*; and all the measures of the executive government are settled by their deliberations.

The regular division of labor which is established in the British government, is one of its chief excellences; because every secretary, or other officer of state, having a particular department assigned to him, the responsibility is established at once for any error or mismanagement, which may be either rectified or punished. Parliament itself has its duties; and when these are not performed to the satisfaction of the electors, the members can be dismissed at next election, to make way for others.

The executive government of Ireland is vested in a Lord Lieutenant, who is appointed by and dependent on the ministry. He is assisted by a Privy Council, a body also nominated by the ministry, and invested with great powers, judicial and ministerial; and also by a Chief Secretary, who is always a member of the House of Commons, and more immediately the responsible member of the Irish government. The counties are under the headship of Lords Lieutenant and High Sheriffs, as in England. The levy and expenditure of money for local purposes, is vested in the local grand-juries. There is no political government of Scotland distinct from that of Great Britain. The Colonies and dependencies have each its own local administration.

Judiciary. The judiciary is very complicated. There are in England three distinct codes by which the Supreme Courts are regulated, viz: the Common Law, which is administered in the Court of Queen's Bench, Common Pleas and Exchequer; the Civil, and Ecclesiastical Laws, which are administered by the Ecclesiastical and Admiralty judges; and Equity, which forms the basis of pleas in the Court of Chancery. The judges of the Queen's Bench, Common Pleas and Exchequer, are the judicial assessors of the House of Lords; to which final appeal lies in all cases in law and equity, except appeal cases from the colonies, which are heard and decided by a committee of the Privy Council composed of the legal members of that body. These judges also make periodical circuits through the entire counties of England and Wales, where, at the assizes, they administer civil and criminal justice. The magistrates of cities and boroughs are likewise invested with judicial functions, and by the municipal Reform Act a uniform system has been established in all boroughs, except London. In every county there are a number of justices of the peace, who are individually committing magistrates, and collectively act as judges at the county sessions. The most important cases, however, are left for the assize judges to determine. For the decision of smaller civil cases the old and long disused system of county courts has been lately revived, but with important modifications. The sheriffs are appointed by the sovereign annually, from three persons presented for selection, and are in their own counties keepers of the king's peace, executive officers of the Supreme Courts, and bailiffs to the crown. The coroner is chosen by the freeholders of the country. There are usually four coroners to each county who hold their offices during life. The subordinate keepers of the peace are the usual bodies of constables and police. The Lords Lieutenant are keepers of the Records in their respective counties and first justices of the peace.

The laws of Scotland are, like those of England, a heterogeneous, ill-digested mass, the accumulation of ages, and derive their authority chiefly from the decisions of the supreme courts, or established custom. These are administered by the Court of Ses-

sions, and the High Court of Justiciary. The first is the supreme civil court of law, and by virtue of its inherent supremacy, exercises the ministerial functions of the Court of Chancery, in respect to the guardianship of children, idiots and lunatics, and the property of absentees; and in all cases decides according to equity as well as law. Appeal lies to the House of Lords. The High Court of Justiciary is a criminal tribunal, and is strictly supreme, there being no appeal from its decisions. Every county is placed under a sheriff who is both judge and magistrate. There is in Scotland an officer of high rank and dignity, styled Her Majesty's Advocate, or by courtesy the Lord Advocate, who, with the assistance of the Solicitor General and several advocates-depute, superintends the whole criminal business of the country, and acts as public prosecutor in cases brought before the High Court of Justiciary. The counties have each a similar officer styled Procurator-fiscal, whose duties are confined to his own territorial limits. These functionaries always act under the Lord Advocate, and report to him all their proceedings. The orders and decrees of the Supreme Court are executed by a class of officials styled Messengers-at-arms, appointed by the Lord Lyon King at Arms. The lowest official in Scotland is the "Hangman" of Edinburgh, the only person of his profession between York and the Shetlands.

The administration of the laws in Ireland is vested in the Lord Chancellor, assisted by the Master of the Rolls; and in the twelve judges of the Supreme Courts, of King's Bench, Common Pleas and Exchequer. The twelve judges visit the counties in six circuits twice a year, for the trial of civil causes *in nisi prius* and criminal cases of a more serious character. Minor offences are determined before magistrates at petty sessions. Stipendiary magistrates are now stationed in the large towns.

Each of the colonies has a Judicial system of its own, with an appeal in certain cases to the Privy Council, as already mentioned.

Debt. At the revolution of 1688, the national debt amounted to only £664,263; at the present time the amount is £765,000,000, with an interest of £27,500,000.

Revenue. The revenue which it is necessary to raise for the purpose of paying the interest of the debt, and conducting the business of the country, is derived from taxation upon a very great variety of different articles, which are all, however, reduced to the following heads:

Receipts for the years ending 5th Jan., 1846, 1847, and 1851, respectively.

Sources,	1846.	1847.	1851.
Customs.....	£18,792,848	£17,888,988	£20,615,337
Excise.....	12,783,998	12,968,298	14,442,081
Stamps.....	7,301,797	6,449,104	6,385,082
Taxes (land and assessed)...	4,325,782	4,306,703	3,563,961
Property Tax.....	5,491,936	5,411,268	5,304,923
Post Office.....	854,000	787,000	1,069,000
Crown Lands.....	112,000	71,000	150,000
Miscellaneous.....	807,621	280,201	139,166
Total ordinary Revenue	£49,619,482	£47,407,466	£51,669,553
China Money.....	227,644	465,021	419,156
Imprest and other Monies..	208,190	187,408	90,297
Repayment of Advances...	804,843	422,485	60,000
Total Revenue.....	£51,060,109	£48,472,400	£52,258,006

By the new tariff, as given on a subsequent page, the British custom duties have been greatly simplified, and a very large number of articles added to the free list. Nineteen-twentieths of the whole amount of duties is levied upon a few leading articles,—tobacco, sugar, tea, spirits, wine, coffee, timber, cocoa, etc.

Expenditures. At the beginning of the year 1843, the total public debt of Great Britain and Ireland, was £765,126,582, and the annual charge upon it for interest and management, £27,501,783. A part of this debt consists in annuities for terms of years or which the other portions of the debt are at all times exchanged at certain fixed rates. The annual amount immediately payable is thus somewhat increased, but a future re-

BRITISH EMPIRE.

duction is ensured on the expiration of the annuity; and this is the policy now chiefly pursued for the reduction of the public debt. The following is a statement of the total expenditure incurred by Great Britain on account of her colonies during the years mentioned below.

	1847-48.	1848-49.	1849-50.	1850-51.
<i>Military and Maritime Stations.</i>				
Gibraltar.....	£208,118	£217,841	£210,740	£191,946
Malta.....	173,247	188,546	169,888	151,069
Cape of Good Hope.....	769,601	478,797	291,459	375,745
Mauritius.....	129,516	114,598	116,307	106,306
Bermuda.....	115,870	180,287	128,075	117,986
Falkland Islands.....	5,704	7,056	60,895	48,348
Ascension.....	8,565	2,270	1,486	1,990
Heligoland.....	822	1,134	948	975
Ionian Islands.....	119,929	145,918	133,042	130,346
St. Helena.....	69,862	73,400	3,402	6,781
Hong Kong..	185,185	197,842	182,270	107,485
<i>Plantations and Settlements.</i>				
Jamaica.....	147,339	153,589	155,981	153,446
Bahamas.....	37,433	26,729	22,958	23,376
Honduras.....	12,755	19,575	16,006	15,099
Barbadoes	}			
Grenada				
St. Vincent				
Tobago				
Antigua				
Montserrat				
St. Christopher's				
Nevis				
Anguilla				
Virgin Islands				
Dominica	}			
St. Lucia				
Trinidad				
British Guiana				
<i>Plantations and Settlements.</i>				
Canada.....	408,317	485,763	360,264	322,293
Nova Scotia.....	165,749	161,961	144,716	132,590
New Brunswick.....	8,751	15,280	11,984	12,615
Prince Edward's Island.....	4,857	4,508	3,689	3,243
Newfoundland.....	43,967	33,248	31,069	30,011
Sierra Leone	}			
Gambia				
Cape Coast	71,922	76,378	62,610	78,046
Ceylon.....	93,575	90,882	91,616	99,168
Western Australia.....	13,764	15,671	3,905	3,232
Southern Australia.....	5,878	4,821		100
Northern Australia.....	5,636		150,241	96,796
New Zealand.....	188,602	195,810		
Labuan.....	605	9,865	3,221	9,620
<i>Penal Settlements.</i>				
New South Wales.....			56,184	48,799
Van Dieman's Land.....	319,232	277,778	224,444	191,359
West Australia.....			18,920	38,516
General Charges.....	46,869	28,941	34,254	66,715
Total.....	£3,804,138	£3,480,345	£2,979,826	£2,914,354

Note. The additions in the above table will not be found precisely accurate, the shillings and pence having been omitted from each item, but included in the general totals.

The expense incurred for the personal support of the sovereign and royal family and household, is but a small item in the general expenditure of the nation. Formerly the

crown possessed private revenues from lands, duties, etc., but all such are now abandoned to the country, (chiefly under the management of the Board of Woods and Forests,) and the sovereign has a civil list of fixed sums regularly voted by Parliament.

On the accession of Victoria, sums were voted for the royal household, amounting in the aggregate to £386,000, with power to the crown to grant pensions not exceeding £1,200 in any one year. The cost of the Civil Department of the government does not fall much short of three millions a year, and is distributed among about 22,000 functionaries; in this, however, is included the expenses of the Irish government. The annual expenses for ambassadors and consuls to and in foreign countries are about £300,000, and for courts of justice, nearly £800,000. Altogether the civil management of the kingdom costs £4,000,000 annually.

Next to the national debt, the army and navy are the greatest burden on the country; the average expense of these are respectively, about £6,000,000 annually, or together £12,000,000, a sum much more than equivalent to all the ordinary expenses of the United States government.

Army. According to the terms of the constitution, a permanent or standing army is not held to be legal. It is understood that the civil power, as exerted by magistrates, constables, and police, is competent to preserve order, and that the creation of a military force is only a matter of temporary necessity. An army, however, being constantly required, both to assist the authority, and to protect the foreign possessions of the empire, an act of parliament, called the Mutiny Act, is passed annually, to maintain a large body of troops in regular service. The privates in the army are enlisted by small bounties from the lowest classes of the community, and very rarely, if ever, are promoted to the rank of commissioned officers. The commissioned officers, in general, belong to the aristocracy or landed gentry, and in most instances purchase their commission according to a scale of prices. Although both privates and officers are alike ill-prepared, by previous instruction, for performing the duties of their profession, such are the effects of discipline, the excellence of equipment, and other advantages, but above all, a high tone of honor and spirit of valor, that the British army is found able to compete with forces recruited under far more favorable circumstances.

The British army on the 1st of June, 1848, consisted of two regiments of Life Guards, one of Royal Horse Guards; seven of Dragoon Guards; four of Light Dragoons; four of Dragoons; four of Huzzars, and four of Lancers — comprising the cavalry. The foot or infantry arm consisted of one regiment, in three battalions, of Grenadier Guards; one of Coldstream Guards; one of Scotch Fusileer Guards; and one of Rifle Brigade, each having two battalions; and 99 regiments of foot in 138 battalions. There were also one regiment of Artillery in nine battalions; one corps of Engineers, and one corps of Sappers and Miners — altogether numbering nearly 9,000 horses and 120,000 men, of whom about 14,000 are officers and non-commissioned officers. This number was exclusive of the Indian army, and the several colonial regiments known as the Ceylon Rifle Regiment, the three Royal West India Regiments, the Cape Mounted Rifles, the St. Helena Regiment, the Malta Royal Fencibles, the Royal Canadian Rifles, and the Royal Newfoundland Veteran Corps. Of the British army (properly so called) from 20,000 to 25,000 men are generally stationed in Ireland; about 30,000 serve in India; from 10,000 to 12,000, including artillery and engineers, in Great Britain, and the remainder are dispersed in America, the West Indies, and the British colonies and possessions in different parts of the world.

The pay of a private in the horse guards varies from 1s. 9d. to 2s. 0½d. per day; in the cavalry of the line, 1s. 4d.; in the foot guards 1s. 2d.; and in the infantry of the line, 1s. 1d. When at home and in barracks, 6d. a day is deducted from this, for which the soldier receives three quarters of a pound of meat, and one pound of bread. The principal part of his clothes and accoutrements is furnished at the public expense; his pay, however, is subject to a deduction of 2s. 7½d. a week, in the case of privates serving in the cavalry; 1s. 1d. a week from privates in the foot guards, and 1s. 6d. from all other privates, on account of these articles.

Navy. Great Britain has long been renowned as a first-rate naval power: by command of its war vessels it protects its commerce, and exerts its authority in the most re

note quarters of the globe. It is usual to say that Britain possesses the "dominion of the seas;" but this is only a figure of speech. The nation possesses no acquired or vested sovereignty over the ocean, acknowledged by other powers, although at times it may forcibly compel submission. The British royal navy is recruited in much the same manner as the army; but the constitution, by a singular anomaly, sanctions the forcible abduction of men from their private homes to serve on board of war vessels. This species of impressment, however, is only resorted to in cases of urgent necessity, as for instance during the heat of war. The sailors who enlist are generally young men who have served an apprenticeship on board merchant vessels; and with this preparation, they form seamen of the highest qualifications.

The average pay of a sailor is £2 7s. per month, with victuals, which are estimated at about £1 4s. additional. High salaries are paid to people about the dock-yards, the master-workmen receiving £250 per annum, and the artificers from 5s. to 12s. 6d. per day. During the war with France, Great Britain had upwards of 1000 ships, manned by 184,000 seamen.

The following table will exhibit the naval force of Great Britain for the year 1846:—

	In Commission.		Building.		In Ordinary.		Total
	No.	Guns.	No.	Guns.	No.	Guns.	
Ships of the line.....	17	1,570	28	2,124	75	6,358	118
Frigates.....	82	1,146	15	498	73	3,066	168
Sloops, brigs and bombs.....	71	856	21	305	40	521	132
Schooners, cutters, tenders & ketches.	33	66	—	12	6	18	39
Steam Frigates.....	6	60	—	120	4	40	23
Steam Sloops.....	54	270	20	100	6	30	80
Steam Packets.....	21	42	8	8	—	—	29
Other steamers.....	9	18	6	12	—	—	15
Transports and troop ships.....	5	70	—	—	—	—	5
Receiving ships, coast-guards, and other non-effective vessels, etc. }	84	485	—	—	—	—	84
Total.....	332	4,583	100	3,161	204	9,933	636

Whole number of guns to 636 vessels, 17,481; number of men in the navy, 27,500—boys, 2,000—marines, 10,500—total, 40,000.

The number of vessels in the revenue service amounts to 72, mounting 144 guns. The British Indian navy in 1844—5, consisted of 36 vessels, of which 22 were steamers—guns, 166. The total number of steamers in the English navy, including 36 contract mail steamers is 199. There are also eight East India mail steamers.

At the close of the last century Great Britain owned more than one-third of all the ships of the line in Europe, and now possesses nearly as many such ships as all the rest of the world together. The details will be seen in the following figures:—

	Close of last century.	Present time.
France.....	86	45
Spain.....	69	8
Russia.....	36	50
Holland.....	38	3
Denmark.....	24	6
Portugal.....	13	2
Turkey and other Mediterranean powers.....	13	20
Sweden.....	—	10
	363—55.6 per ct.	144—53.5 per ct.
Great Britain.....	153—56.4 "	125—46.5 "
United States.....		10

Religion. The United Kingdom is a Protestant state, but all religions (not offensive to public or private morals) may be professed, and their different forms of worship pro-

tised without interference from any quarter whatever. All denominations of Christians have their own churches, employ whom they please as their pastors, and are equally under the protection of the law. The empire contains several established or predominant churches, which are supported by special acts of the legislature. In England and Ireland there is one Church, denominated the United Church of England and Ireland (separate before the union of the two countries in 1800), being a Protestant Episcopacy. In Scotland, the established religion is Protestant Presbyterian. The religion of the English church, and also the law of England, are established in every colony by the simple act of adding the territory to the crown, unless there be a special provision to the contrary. Thus the Church of England prevails in all the great colonial dependencies, except Lower Canada, which is guaranteed a Roman Catholic hierarchy; the Cape of Good Hope, which has been guaranteed Protestant Presbyterianism; Malta, which is Roman Catholic; and so on with some minor colonial possessions.

The affairs of the Church of England are managed by archbishops and bishops, but no step of any importance, out of the ordinary routine, can be taken without an act of Parliament, and therefore the church may be said to be governed by the legislature of the country. The sovereign is the head of the church, which is thus in intimate union with the state. The laity, except through their representatives in the House of Commons, possess no right to interfere in any shape with the doctrines or practice of the church. The doctrines defined by law are contained in the Thirty-nine Articles, and the form of worship is the Book of Common Prayer. Ecclesiastically, the country is divided into dioceses, each of which is under the care of a bishop or archbishop; the dioceses are classed under two provinces, each of which is under the charge of an archbishop. The dioceses are as follows: Province of Canterbury — Canterbury, London, Winchester, Litchfield and Coventry, Lincoln, Ely, Salisbury, Exeter, Bath, and Wells, Chichester, Norwich, Worcester, Hereford, Rochester, Oxford, Peterborough, Gloucester, and Bristol, Llandaff, St. David's, St. Asaph, and Bangor. Province of York — York, Durham, Carlisle, Chester, Manchester, Sodor and Man, and Ripon. Gloucester and Bristol were separate until lately. It is designed to unite the diocese of Sodor and Man to that of Chester, and the diocese of St. Asaph to that of Bangor. Ripon and Manchester are now bishoprics. The archbishop of York is styled "Primate of England;" and the archbishop of Canterbury, who ranks next to the royal family, is styled "Primate of all England." Not less than twenty-seven bishops of the Church of England, have been appointed for the various colonies and foreign dependencies of the empire. The other dignitaries of the church are archdeacons, deans, and prebendaries; the inferior clergy are rectors, vicars and curates. Strictly there are only three grades, bishops, priests, and deacons, all clergymen belonging to one of these. The bishops are entitled to be addressed as "My Lord," being legally spiritual peers. The revenues exigible, by law, for the support of the church, are most unequally distributed, and the dioceses are of very unequal proportions. The same may be said of the working clergy, some of whom have wealthy, and others very poor benefices; while curates, or assistants, are paid on the meanest scale. The following table, extracted from a parliamentary paper, shows the number of benefices or livings, parishes, churches and chapels in each diocese:—

DIOCESSES.	No. of Benefices.	No. of Parishes.	Churches and Chapels.
St. Asaph, ...	160	139	143
Bangor, ...	131	179	192
Bath and Wells, ...	440	479	493
Bristol, ...	255	298	306
Canterbury, ...	343	369	372
Carlisle, ...	128	100	129
Chester, ...	616	580	631
Manchester, }			
Chichester, ...	266	289	309
St. David, ...	451	525	561
Durham, ...	175	140	241
Ely, ...	156	158	160
Exeter, ...	697	691	711
Gloucester, ...	283	296	330

BRITISH EMPIRE.

DIOCESES.	No. of Benefices.	No. of Parishes.	Churches and Chapels.
Hereford.....	326	346	360
Llandaff.....	194	221	223
Litchfield and Coventry.....	623	650	655
Lincoln.....	1,273	1,370	1,377
London.....	577	650	689
Norwich.....	1,076	1,178	1,210
Oxford.....	208	207	237
Peterborough.....	305	385	338
Rochester.....	93	107	111
Salisbury.....	408	451	474
Winchester.....	389	408	464
Worcester.....	222	280	260
York.....	328	741	876
Total.....	10,533	11,077	11,825

The revenues of the archbishops and bishops amount in the aggregate to £150,000 per annum. The largest incomes are those of the archbishop of Canterbury, about £17,000; Archbishop of York, £10,000; Bishop of Durham, £8,000; Bishop of London, £11,700; Bishop of Winchester, £10,500; and Bishop of Ely, £5,500; the others vary from about £2,500 to £5,000. The greater part of these revenues are derived from lands, or rents for grounds let on leases, and for which fines are taken at entry. The chapters of cathedrals, composed of deans, canons, and prebends, possess also large revenues; the dean of Durham, for instance, having £4,800 a year, and other members of the chapter, £32,160. The gross revenues of the deans and chapters amount to upwards of £235,000. The colonial bishops receive from £800 to £5,000 each, paid, for the most part, by parliamentary grants. The revenues of the inferior or parochial clergy are derived from tithes commuted into money payments, and also fees at celebrating marriages, baptisms and funerals. With respect to the parochial branch of church emoluments, we extract the following from Mr. McCulloch's Statistical Account:—"It appears that of 10,478 benefices, from which returns have been received, 292 are under £50 a year; 1629 are between £50 and £100 a year; and 1607 are between £100 and £150; so that there are 1,926 benefices under £100 a year, and 3,528, or more than a third of all the benefices in the country, under £150 a year. On many of these benefices there are no glebe houses, nor do they possess the means of erecting any. Were the spiritual duties of the poorest of these livings not performed by the clergymen of the neighboring parishes, it is difficult to see how they could be performed at all." Curates are paid by the rectors or vicars, whose servants they are; by law, their salary cannot be under £80—the average is £81.

The total revenues of the English church may be stated in general terms as follow:—

Archbishops and bishops.....	£150,000
Cathedral and collegiate churches.....	250,000
Deans and other functionaries.....	60,000
10,533 Parochial benefices.....	3,100,000
Curates of resident clergy.....	87,000
Curates of non-resident clergy.....	337,000
Total.....	£3,984,000

The appointment of the clergy to benefices is as follow: presented by the crown, 953; by archbishops and bishops, 1,248; by deans, chapters, and ecclesiastical corporations, 2,638; by universities, colleges, and hospitals, 721; by private individuals, 5,096; and by municipal corporations, 53.

In 1847, the total number of congregations belonging to the Established church was 11,855. At the same time there were the following number of congregations of Dissenters: Roman Catholics, 622; * Presbyterians, 212; Independents, 1897; Baptists, 1,881; Cal-

* Titular Roman Catholic Bishops have recently been appointed by the Pope of Rome throughout England, but they have no legal existence.

ministic Methodists, 507; Wesleyan Methodists, 2,818; other Methodists, 666; Quakers, 96; Home-Missionary congregations, 453; Unitarians, 360; total of Dissenting congregations (exclusive of Jews), 9,812. It is considered probable that this number includes as many actual worshippers as the 11,855 congregations of the Establishment, or about 500,000. Thus, reckoning Dissenters and members of the Established church at 9,000,000, about 7,000,000 remain, who cannot be said distinctly to attend any place of worship, though in most instances nominally belonging to the Established church.

In Ireland, the established religion is the same Protestant Episcopacy, of which another branch is established in England. The same doctrines, ritual, and forms of ecclesiastical government exist in these two countries, the hierarchies only being different with respect to their political status. Formerly there were four archbishoprics: Armagh, Dublin, Cashel, and Tuam, with thirty-two dioceses under eighteen bishops. Under a new arrangement there are only two archbishops, those of Armagh and Dublin, and ten bishops. The archbishop of Armagh is styled "Primate and Metropolitan of 'all Ireland,'" and the archbishop of Dublin is styled "Primate and Metropolitan of Ireland." The number of parishes, including perpetual-curacy, is 2,405; but many have no church, and the number of incumbents for the whole is only 1,385. According to the proposed arrangements, the money saved by the extinction of higher offices is to be appropriated to sustain churches and glebe-houses in parishes, and to execute other necessary purposes.

The revenue of the Irish archbishops and bishops amount to £151,128 annually; and the total income of the church, including the value of glebe-lands and tithes, is about £700,000.

The Roman Catholic church in Ireland, supported by the voluntary contributions of the people and certain fees exacted for spiritual services, consists of four archbishops and twenty-four bishops, with 1,013 parish priests, 1,394 curates, and other priests (regulars) about 300; total clergy, 2,735. The number of Roman Catholic chapels is 2,205; colleges, 25; convents, 56; nunneries, 93; and monasteries, 42. After the Roman Catholic body, the chief Dissenting communion is that of the Presbyterians, in the northern parts of the country, with about 500 congregations.

The established Church of Scotland is Presbyterian in its form of government. The clergy are all equal in rank, and are officially ministers of parishes. To the church belongs a body of lay functionaries called elders, each church having several, who assist the clergymen at the communion, visit the sick, and generally act as a vigilant ecclesiastical police. This incorporation of laity with the church has given it a remarkably secure footing in the affections of the people. The ecclesiastical community is governed by a series of courts—the lowest being the kirk-session in every parish, composed of the minister and elders; the next is a court composed of the clergy of a division, called a presbytery, and an elder from each parish; the next is a synodal court, composed of functionaries from an aggregation of presbyteries; and the highest is the General Assembly, composed of delegates from the presbyteries, and which meets annually at Edinburgh. Constant residence in their parishes is obligatory on the clergy. The number is about 1000.

The parochial clergy are supported by money stipends levied from the heritors or landowners, on the principle of commuted tithes or teinds. The amount of stipends yearly depends on the average market-value of corn, the averages being called *fiars*, which are struck annually by a jury in every county. Each minister being entitled to a certain quantity of grain, the value of the quantity, according to the *fiars*, is paid in money. If the teinds in the hands of the heritors be not all uplifted, the stipend is liable to be increased at the end of every twenty years. The gross amount of teinds, paid to the clergy annually, is about £150,000. The total income of the church, including value of glebes and manse, is calculated at £275,000. In some parishes, the exigible stipend is so small, that it is made up to a minimum of £150 by government. Among the largest stipends are those paid to the eighteen parish ministers of Edinburgh, who receive about £500 each, levied by a peculiar law as a money-tax from the inhabitants.

The appointment of the ministers rests with certain large proprietors called Patrons. The attempt to regain for the parishes the right of rejecting nominations not agreeable to them, led recently to a large secession from the Establishment and the institution of a new Communion called the *Free Church of Scotland*, which has been largely endowed

by private subscriptions. There are numerous other dissenters, mostly Presbyterian, who including the Free Church, exceed the members of the Established Church.

Public Education.—England is almost the only country in Europe in which there is no system of education. For the instruction of her clergy and gentry, she has several great public classical schools, among which are those of Winchester, Westminster, Eton, Harrow, Charterhouse and Rugby, and also two great universities, Oxford and Cambridge. To these have lately been added the University of London, consisting of two colleges, founded and endowed by private subscription, and named University College and King's College; the Durham University, founded and endowed by the Bishop and Chapter; St. David's College at Lampeter in South Wales, founded by Dr. Burgess the Bishop of St. David's, for the education of Welsh clergymen; and several others. There are also colleges founded by the Dissenters; those of Haileybury and Addiscombe, belonging to the East India Company; Sandhurst Royal Military College; and Portsmouth Royal Naval College.

The following institutions are empowered to issue certificates to candidates for degrees from the University of London, in Arts and Laws: the Universities of the United Kingdom; University College, London; King's College, London; New College, London; New College, Manchester; Owen's College, Manchester; Spring-Hill College, Birmingham; Queen's College, Birmingham; St. Cuthbert's College, Ushaw; Stonyhurst College; St. Mary's College, Oscott; St. Edmund's College, Ware; Colleges of St. Peter and St. Paul, at Prior Park, near Bath; Stepney College; College of St. Gregory the Great, Downside, near Bath; Countess of Huntingdon's College, Cheshunt; Baptist College, at Bristol; Airdale College, near Bradford; Protestant Dissenters' College, Rotherham; Presbyterian College, Carmarthen; Huddersfield College; Lancashire Independent College; Westley College, near Sheffield; Wesleyan Collegiate Institution, Taunton; Western College, Plymouth; West of England Dissenters' Proprietary School; Bedford Grammar Schools; Breton Independent College.

Elementary instruction is given to the children of the poorer classes by endowed and Charity Schools, and the children of the middle classes are chiefly educated at schools of private teachers. There are in England about 4,200 endowed schools, 18,000 unendowed schools, and a large number of Sunday schools, educating 1,500,000, or one-tenth of the entire population, instead of the sixth, which Prussia has shown to be the proper amount of school-attenders. Thus England is shown to enjoy little more than half the proper amount of education, even supposing the education she did enjoy to be good.

Of late, additional schools have been opened, particularly in connection with factories, mechanics' institutions, and by subscription. At present, a considerable proportion of the humbler order of schools are in connection with two great rival societies—the British and Foreign, and the National, both of whose head establishments are in London. Recently, an annual grant has been made by Parliament, to enable the privy-council to encourage elementary instruction in such schools as will submit to the supervision of an inspector. In the year ending Oct. 31, 1851, 2,310 schools were actually inspected, and thus entitled themselves to share in the grant. They included 1,713 Church of England schools, in England and Wales; 282 Protestant Dissenting schools, in England and Wales; 98 Roman Catholic schools, in Great Britain; and 217 Presbyterian schools, in Scotland, of which 91 were of the Free Church. Accommodation was afforded, in these schools, for 299,425 scholars; and the average number in attendance was 271,126. The total yearly expenditure was £213,927; the total income was £204,243; of which £34,039 was paid by the scholars, and £86,999 was raised by local subscriptions and collections. Religious sectarian differences have, as yet, frustrated every other step toward the establishment of a national system of education. Above a third of the adult male of England are unable to sign their names, and near a fourth can neither read nor write.

The chief educational establishment in Ireland is Trinity College, in Dublin; but to this only members of the Church of England are admitted. There have lately been established Queen's University Colleges at Belfast, Cork, and Galway, under the patronage of the government, and open to all without distinction of sect. There are also other collegiate institutions at Carlow, Kilkenny, Thurles, and Belfast. Maynooth College is an ecclesiastical school endowed by the State, in favor of the Catholics. In 1831 there were

established, by act of Parliament, a national system of education, the main feature of which is an arrangement by which the children are separated, at certain times, and taught religion by their respective pastors—the necessary funds being provided by the State. By this means it was hoped that the great body of the people, and more particularly the children of the poorer class of Catholics, would at length be brought within the pale of education. The national board consists of nine commissioners chosen from both the Roman Catholic and Protestant bodies—the Roman Catholic and Protestant archbishops of Dublin being among the number. The commissioners receive from the public purse, and expend annually, the sum of £50,000. But these schools as well as the colleges just mentioned, have encountered great opposition from the zealots of all sects, who prefer to have the people uneducated rather than not have their own creed taught.

Besides this great national system of elementary instruction, the country possesses several religious or charitable associations for promoting education among the poorer classes: of these the principal are the Kildare Place Society, and the Church Education Society. The Roman Catholic body also supports a considerable number of schools. The following statistics are taken from President Bache's Report, and will prove interesting.

Number of daily schools	9,657
Number of daily schools supported wholly by payments from the children	5,658
Number of daily schools supported wholly or in part, by endowments or subscription	4,004
	The National Board Association for discountenancing vice Erasmus Smith's Fund Kildare Place Society London Hibernian Society 892 203 115 235 618
Number of schools in connection with, or receiving support from	
Number of daily schools of which the books containing lists of the children were produced	8,886
Number of children on the books of these schools	Males Females Sex not specified 853,809 228,900 5,700
Total	588,418
Number of schools of which no lists were produced	771
Computed number of children under daily instruction in such schools	50,886
Computed total number of children under daily instruction	633,946

Scotland possesses five colleges or universities for the higher branches of instruction: being those of Glasgow, St. Andrew's, King's College, and Mareschal College, Aberdeen, and Edinburgh. Education at these institutions is generally conferred on a more liberal and less expensive scale than at the universities of England. Scotland has been long distinguished for its parochial institutions for elementary instruction, and also for its grammar-schools or academies in the chief towns, which serve as preparatory gymnasia for the universities. Each parish (some parishes in towns excepted) is provided with a school at the expense of certain land-owners or heritors, in virtue of an act of Parliament passed in 1696, re-enacting statutes formerly in existence. Within the last 40 years, the parish schools have been almost superseded in some quarters by the establishment of voluntarily-supported institutions, better suited to the wants of the age.

In a report to Parliament, the number of schools in Scotland was stated as follows:—Parochial schools, 1,047; pupils attending them, 68,293; total emoluments of teachers, £58,339. Voluntarily-supported schools, 3,995; pupils attending them 151,160. It appears from this that there were 219,453 children receiving instruction, (not including the attendance of Sunday Schools,) and that of these only 68,293, or a little more than one-fourth, were educated at the parochial schools. There are 5,042 schools, and of these only 1,047, or about one-fifth, were parochial establishments. The publication of this report caused considerable surprise, for it was generally believed that the great bulk of the juvenile population were instructed in the parish schools. A great difference was found between the attendance of males and females. Taking the entire attendance on the

schools, there were 132,489 males, 89,964 females. The result of the inquiry seems to be, that about one in nine of the population in Scotland attends school.

Poor Laws. Pauperism and distress exist constantly in the United Kingdom, to such an alarming extent that the subject of the poor-laws has become one of the most absorbing interest. The English poor-laws may be divided into three classes: the first, extending from the middle of the reign of Edward III. to the end of that of Elizabeth; the second, from the death of Elizabeth to the middle of the last century; and the third, from the middle of the last century to the year 1834, when the Poor-Law Amendment Act was passed, by which the management of pauperism was placed upon an entirely new system. The poor-laws of the most ancient period appear to have been nothing more than parts of a systematic attempt to restore the old feudal institution of villanage, by confining the laborers to their parishes, and forcing them to work there for such wages as their masters chose to allow them. This attempt, however, completely failed of its object. During the second period, the object of the laws was to relieve the impotent and infirm pauper, only; the able-bodied being considered subject to the provisions, not of the poor-laws, but of the vagrant acts. During this period the laws appear to have been successful. During the third period, the object of the laws was to provide the destitute laborer with a comfortable subsistence at his own home, whatever might be his character and conduct, and whatever the value of his labor. This attempt succeeded in those parts of the kingdom which have received the name of the *pauperized districts*, and placed the laborer in the condition, physically and morally, of a slave. He was confined to his parish, maintained according to his wants, not to the value of his services, restrained from misconduct by no fear of loss, and therefore not stimulated to industry and activity by any hope of reward.

The present system, established by the Poor-Law Amendment Act in England and recently introduced into Ireland also, provides for the creation of a Central Board of Commissioners, who have the whole administration of affairs for the relief of the poor. These commissioners make all rules, orders, and regulations for the management of paupers, the government of work-houses, the guidance and control of guardians, vestries and salaried officers. They are also empowered to carry the act into effect in all other respects, as they think proper, except that they are not allowed to administer relief by interference with any individual case. To enable the Central Board to adapt their rules to the varying circumstances of the 15,000 parishes over which they preside, and to superintend their execution, they appoint assistant commissioners, each itinerant within his own district. This system made no direct change, either in the nature or amount of the relief to be given, or in the persons entitled to it. It legalizes neither allowance nor relief, without labor; but contains no enactments prohibiting them, or declaring their illegality. The Commissioners began their labor by uniting and organizing the parishes. They have now created 607 unions of parishes administered by guardians. There remain 490 parishes unorganized on account of legal difficulties. One of the earliest regulations was the prohibition of pecuniary relief, in common cases, to individuals out of the work-houses and in good health. By this operation, many of the most serious evils of the old system were extirpated, and the laborers have been raised from a state of servitude to freedom. The taxation for the support of the poor has also been lessened. In 1834 the poor rates amounted to £7,511,219. In 1840 they were diminished to £5,110,683, and they are now somewhat less. The success of the new system has not been confined to this pecuniary saving. The morals of the laboring classes have been improved, and their activity and industry stimulated. The laborer, finding himself no longer entitled to a fixed income, whatever may be his idleness or misconduct, and no longer restricted to that income, whatever may be his industry and integrity, becomes stimulated to activity and honesty by the double motive of hope and fear.

On the 1st of Jan., 1852, the total number of persons in England and Wales, receiving relief, was (exclusive of the 490 unorganized parishes) 132,269, of whom 18,869 were in the work-houses. The total number who had received relief during the year previous was 835,360.

The whole number relieved in Ireland, which is divided into 163 unions, during the year ending Sept. 29, 1851, was 706,278 in the work houses, and 49,079 out of them, at

total expense of £1,102,873. The total number of inmates in the work-houses, Jan. 18 2, was 168,248. There were accommodations for 288,860.

In the year ending May 14, 1851, the expenditure for the relief of the poor in Scotland was £535,942. The number relieved, including 42,093 cases of casual relief, was 113,701. There are 881 parishes in Scotland, of which 653 are assessed, and 228 support their poor by voluntary contributions.

Highways. In the year ending March 25, 1850, there was raised in England and Wales £1,902,004. The number of highways by rates and labor performed in lieu of rates, £1,902,004. The total receipts of turnpike trusts in 1849, were £1,699,428.

Manufactures. The manufactures of Great Britain surpass in extent and variety those of any other country; and from the superior character of its machinery, the economizing of time, and the refined skill of its workmen, are generally produced at a lower rate, and of better quality, than in countries more favorably situated with respect to the production of raw materials.

The *cotton manufacture* is the most extensive of the whole, both with respect to the capital which it involves, and the number of people to whom it gives employment; it is supposed to form one-fourth part of the total industry of Britain. The number of work-people in its various departments (reckoning spinners, weavers, bleachers, etc.; engineers, smiths, and others engaged in the works,) is estimated at 1,700,000. The capital engaged in this large branch of manufacture at present is reckoned at about £40,000,000, and the total value of the goods annually produced is believed to be between £35,000,000 and £40,000,000. The raw material, or cotton wool, is brought chiefly from America, and a part also from the East Indies and Egypt.

The *Woollen Manufacture* was earliest established in England; it gives employment to above half a million of people. The goods manufactured are valued at £20,000,000; the finer qualities of the raw material are imported from Germany, or from Australia; the coarser are produced at home. This manufacture, particularly the finer kinds, is chiefly carried on in the west and north of England.

The *Silk Manufacture* has been carried on for a long period, having been introduced in the fifteenth century by emigrants from France. The quantity of silk for working, annually imported, is about three and a half millions of pounds. The consumption of silk goods at home is large. The annual produce of the manufacture is now estimated at £10,000,000; and it is supposed to give employment to about 300,000 work-people.

The *Leather Manufacture* is of special importance. The value of the different articles of which it forms the material, is estimated at £20,000,000; this includes gloves, saddlery, boots and shoes, etc. The increase of this trade in late years has been very great; hides are imported from all quarters of the world, and the quantity has doubled within a few years.

Iron, Cutlery, and Hardware, forms one of the manufactures in which Britain particularly excels. The abundance of her mines of iron, copper, tin, lead, and coal, and the easy access which can be had to them at all points by sea, river, and railroad, give facilities which are possessed by no other country. The annual value of the manufactured goods is estimated to be above £26,000,000, and employment is given to 420,000 men in the working of copper, brass, pewter, steel, tin, and other metals.

The *Earthenware, China, and Glass Manufactures* rank next to those we have mentioned. The annual value of the glass manufactured is about four and a half millions, and that of the pottery and earthenware about three and a half.

The whole value of manufactures of all kinds produced annually in Great Britain, is reckoned to be upwards of £200,000,000. Their production is limited almost entirely to the island of Great Britain. The only considerable manufacture of Ireland is that of linen, the flax for which is grown on the island; but even this manufacture is chiefly confined to the northern part.

Exports. The export commerce of Great Britain consists almost entirely in the transport of these various articles of manufacture to all the countries in the world which have anything to give in exchange.

The following Table will show the extent of that commerce for the year 1852, and the amount taken by each country.

BRITISH EMPIRE.

British Possessions and Settlements.

India.....	£7,806,596	Tuscany.....	869,181
North America.....	8,818,707	Austrian Italy.....	812,942
Australia.....	2,807,356	Sardinia.....	706,108
West Indies.....	2,201,032	Western Coast of Africa.....	658,234
South Africa.....	752,393	Mexico.....	577,901
Channel Islands.....	618,734	Buenos Ayres.....	458,329
Gibraltar.....	481,286	Sweden and Norway.....	447,183
Malta.....	301,448	Denmark.....	445,500
Mauritius.....	232,955	Syria and Palestine.....	359,871
Honduras.....	232,638	Venezuela.....	349,701
Ionian Islands.....	228,096	New Grenada.....	219,883
St. Helena.....	80,555	Central America.....	319,814
Aden.....	17,184	Papal Territories.....	266,633
Falkland Islands.....	2,841	Hayti.....	239,146
Heligoland.....	288	Greece.....	226,592
		Republic of the Uruguay.....	218,078
Total British Possessions.....	£19,517,039	South Sea Islands.....	60,795
United States.....	£14,862,976	Azores.....	59,635
Holland.....	7,694,059	Ecuador.....	54,099
Brazil.....	8,542,673	Canary Islands.....	49,827
Turkey, Wallachia, and Moldavia...	8,518,684	Madeira.....	41,941
China.....	2,221,359	Morocco.....	40,783
France.....	2,161,268	Bolivia.....	20,100
Foreign W. India Islands (Cuba, etc).	1,850,210	Cape Verde Islands.....	11,094
Russia.....	1,289,704	Tunis.....	7,549
Naples and Sicily.....	1,266,211	Algeria.....	6,917
Peru.....	1,308,258	Dutch Guiana.....	2,180
Chili.....	1,181,887	African ports—Red Sea.....	788
Portugal.....	1,048,356	Pondicherry.....	443
Spain.....	1,015,493	Greenland.....	283
Egypt.....	968,739	Eastern Coast of Africa.....	224
Belgium.....	984,501		
Indian Seas.....	962,598	Total.....	£74,448,122
		Or about \$370,000,000.	

Shipping. The number of merchant vessels belonging to ports of the British Empire, Jan. 1, 1852, was 34,244, with a tonnage of 4,332,085; employing 240,928 men and boys. Of these there were registered in—

	<i>Sailing Vessels under 50 tons</i>	<i>Over 50 tons</i>
England and Wales	6,631	11,848
Scotland.....	1,277	2,132
Ireland.....	991	1,097
Isle of Man.....	811	38
Channel Islands.....	196	295

Making a total of 23,317 vessels, of the collective burden of 3,460,656 tons, not including steamers.

At the various British colonies there were registered in—

	<i>Sailing Vessels</i>	<i>Steamers</i>	<i>Tonnage</i>
Africa.....	210	3	14,914
Australia.....	797	23	63,365
British North America.....	5,852	108	447,794
British West Indies.....	706	3	18,943

Of the entire number of British vessels, 1227 were steamers, of which 60 exceeded 500 tons burden. The tonnage of the whole was 186,666. The screw propeller was used by 58, and 248 were built of iron.

The number of vessels built and registered in 1851, was 672, of which 594 were sail-

sailing vessels, seven of them built of iron, and 78 steamers of which 48 were of iron; the tonnage of the whole being 149,687. There were 611 vessels wrecked in the year, (including 11 steamers) the tonnage of which was 111,976, and 59 sailing vessels and 20 steamers were broken up, the tonnage of which amounted to 8,426. There were 44 colonial built ships, and 26 foreign built ships with a total tonnage of 36,942 tons registered, in the United Kingdom in the same period.

The total number of vessels from foreign ports entering British ports during 1851, was 32,961, with a tonnage of 6,938,223; of these 19,367 ships, with a tonnage of 4,388,245 were British; 970 ships with a tonnage of 778,664 belonged to the United States of America; 10 ships with a tonnage of 2,345 belonged to other American States, Africa, and Asia; and the remainder to different countries of Europe, as follows:—

	<i>Ships.</i>	<i>Tons.</i>		<i>Ships.</i>	<i>Tons.</i>
Russia.....	441	122,665	Holland.....	1,141	125,617
Sweden.....	557	95,096	Belgium.....	203	36,583
Norway.....	1,782	331,908	France.....	2,265	142,126
Denmark.....	1,843	156,422	Spain.....	170	26,557
Prussia.....	1,338	290,614	Portugal.....	72	8,944
Other German States (including Hanse towns).....	1,869	240,525	Italian States.....	661	170,331

Of the above about 23,000 ships with a tonnage of 4,000,000, exclusive of steamers, entered English ports. The entrances at Scotch and Irish ports were about equal in amount, or about 1,500,000 for each.

The entrances in the coasting trade (including as do those of the foreign trade repeated voyages of the same vessel), amounted to upwards of 150,000 vessels with a tonnage of 15,000,000, two thirds of the whole in English ports.

Tariff. The duties levied on importations into the United Kingdom, according to the new Customs Tariff Act of 1852, are as follows:

	£	s.	d.		£	s.	d.
1. Agates or cornelian, set 100l value not set, cut, or manufactured.....	10	0	0	Swine and hogs, and pigs (suck- ling).....			Free
not cut or manufactured.....			Free	16. Annatto, roll and flag.....			—
2. Albumen.....			—	17. Antimony, viz:— Ores of, crude, and regulus.....			—
3. Ale. See beer.....			—	18. Apples, raw bushal	0	0	3
4. Alganobilla seed.....			—	of and from British possessions..	0	0	2
5. Alkali, not being barilla.....			—	dried.....	0	1	0
6. Alkanet root.....			—	19. Aquafortis.....			Free
7. Almonds, not Jordan nor bitter per cwt.....	0	10	0	20. Argol.....			—
Jordan.....	0	10	0	21. Aristolochia.....			—
Bitter.....			Free	22. Arrowroot..... cwt	0	0	4½
Paste of lb	0	0	2	23. Arsenic.....			Free
8. Aloes.....			Free	24. Ashes, viz:— Pearl and pot, soap, weed, Wood, and not enu- merated.....			—
9. Alum, roch.....			—	25. Asphaltum and bitumen judiacum			—
not roch.....			—	26. Bacon.....			—
10. Amber, rough.....			—	27. Balsams, viz:— Canada, Capivi, Peru, Riga, Tolu, Balm of Gilead, and unenumerated balsam.....			—
Manufactures of, not enumerated (except beads).....			—	28. Bandstring twist.....			—
11. Ambergris.....			—	29. Barilla.....			—
12. Amboyana wood.....			—	30. Bark for tanner's or dyer's use — Cascarilla, Peruvian, and of other sorts.....			—
13. Anchovies. See fish.....			—	Extracts of. See extract			—
14. Angelica.....			—	31. Barley, pearled..... cwt	0	0	4½
15. Animals (living), viz:— Asses... Goats and kids.....			—				
Oxen and bulls, cows and calves			—				
Horses, mares, geldings, colts,			—				
foals, and mules.....			—				
Sheep and lambs.....			—				

	£	s.	d.		£	s.	d.
32. Barwood.....			Free	61. Bricks or alinkers, Dutch and other sorts.....			Free
33. Barytes, sulphate of, ground.....			—	62. Brimstone, unrefined, refined, in rolls and in flour.....			—
34. Basket rods, peeled and unpeeled.....			—	63. Bristles, rough and in the tufts, and not in any way sorted; in any way sorted or arranged in colors, and not entirely rough and in the tufts.....			—
35. Baskets cor. with descrip. com. called Berlin cubic foot....	0	0	7	64. Brocade, of gold or silver.....lb	0	5	0
All others.....	0	0	2	65. Bronze, all works of art.....			Free
36. Bast ropes, twines, and strands....			Free	Manufactured of, or of metal bronzed or lacquered.....cwt	0	10	0
37. Beads, viz:— Arango.....lb	0	0	2	Powder.....			Free
and bugles of glass.....			Free	66. Brushes, paint.....			—
Coral.....lb	0	1	6	67. Bullion and foreign coin of gold and silver.....			—
Crystal.....	0	0	2	68. Bulrushes.....			—
Jet.....	0	0	2	69. Butter.....cwt	0	5	0
not otherwise enumerated or described.....	0	0	2	of and from a British possession	0	2	6
38. Beans, kidney and French. See seeds				70. Buttons of metal and other sorts..			Free
39. Beef, salted, fresh, or slightly salted.....			Free	71. Cables (not being iron cables), tarred or untarred, old and new.....			—
40. Beef wood.....			Free	72. Cameos, not set.....			—
41. Beer or ale.....barrel	1	0	0	73. Camomile flowers.....			—
Mum.....	1	0	0	74. Camphor, unrefined and refined..			—
Spruce.....	1	0	0	75. Camwood.....			—
of other sorts.....	1	0	0	76. Candles, viz:— Spermaceti.....cwt	0	2	4
42. Berries, viz:— Bay, Juniper, Yellow, and Myrobalane.....			Free	Stearine, till the 5th April, 1858, unless the duty upon tallow shall be repealed at an earlier time, in which case, or after the 5th April, 1858, this duty shall be reduced to the same rate as tallow candles..	0	3	6
unenumerated, commonly made use of in chemical processes.....			—	Tallow.....	0	2	4
43. Birds, viz:— Singing birds.....			—	Wax.....	0	2	4
44. Biscuit and bread.....cwt	0	0	4½	77. Candlewick.....			Free
45. Bitumen judaicum. See asphaltum				78. Canella alba.....			—
46. Blacking.....			Free	79. Canes, viz:— Bamboo and rattans, not ground.....			—
47. Black wood.....			—	80. Reed canes.....			—
48. Bladders.....			—	Walking canes or sticks, mounted, painted, or otherwise ornamented.....100	0	6	0
49. Bones (except whale fins), whether burnt or not, or as animal charcoal.....			—	Umbrella and parasol sticks... or sticks, unenumerated.....	0	3	0
50. Books, viz:— Editions printed prior to 1801, bound or unbound.....			Free	81. Cantharides.....			—
Editions printed in or since 1801, bound or unbound.....cwt	1	10	0	82. Caoutchouc.....lb	0	0	4
Admitted under treaties of international copyright, or if of and from any British possession.....	0	15	0	83. Capers, including the pickle....	0	0	1½
51. Boracic acid.....			Free	84. Cardamoms.....			Free
52. Borax, refined.....			—	85. Cards, viz:— Playing Cards, 32s. packs.....	0	15	0
53. Borax, or tincal, unrefined.....			—	86. Carmine.....			Free
54. Bottles, of earth and stone.....			—	87. Carriages of all sorts.....			—
55. Boxes of all sorts, except those made wholly or partly of glass, on which the proper glass duty will be levied 100l val.	10	0	0	88. Casks, empty.....			—
56. Boxwood.....			Free	89. Cassava powder.....cwt	0	0	4½
57. Bran.....			—	90. Cassia, viz:— Buds, fistula.....lb	0	0	1
58. Brass, manufactures of, not otherwise enumerated.....cwt	0	10	0	Lignea.....			—
Powder of.....			Free				
Old, fit only to be re-manuf'd..			—				
Wire.....			—				
59. Brazil wood.....			Free				
60. Brasiletto wood.....			—				

	£	s.	d.		£	s.	d.
91. Castor.....			Free	122. Columba root.....			Free
92. Casts of busts, statues, or figures..			—	123. Comfits, dry, until 5th July, 1854,			
93. Catlings.....			—	inclusive.....lb	0	0	2
94. Caviare.....			—	from and after 5th July, 1854..	0	0	1½
95. Cedar wood.....			—	124. Confectionary, until 5th July, 1854,			
96. Chalk, viz., unmanufactured, pre-				inclusive.....	0	0	2
pared or manufactured, and			—	from and after 5th July 1854..	0	0	1
not otherwise enumerated..			—	125. Copper, ore of.....			Free
97. Cheese.....cwt	0	2	6	Regulus of.....			—
of and from British possessions.	0	1	6	old, fit only to be remanufact'd.			—
The duty to be charged on landing				unwrought, viz., in bricks or			
weight.				pigs, rose copper, and all cast			
98. Cherries, raw.....bushel	0	0	2	copper..			—
dried, until 5th July, 1854, in-				part wrought, viz: bars, rods, or			
clusive.....lb	0	0	2	ingots hammered or raised..			—
from and after 5th July, 1854, lb	0	0	1½	in plates and copper coin.....			—
99. Cherry wood.....			Free	wire.....			—
100. Chicory, or any other vegetable				manufactured of, not otherwise			
matter applicable to the uses				enumerated or described, and			
of chicory or coffee, viz:				copper plates engraved...cwt	0	10	0
roasted or ground.....lb	0	0	4	126. Copperas, blue, green, and white..			Free
raw or kiln-dried, until 10th Oc-				127. Ceral, viz., beads. See beads			
tober, 1854, inclusive....cwt	0	4	0	In fragments, whole, polished,			
from and after 10th Oct., 1854.			Free	and unpolished.....			—
101. China root.....			—	Negligees.....lb	0	1	0
102. China or porcelain ware, plain,				128. Cordage, tarred or untarred....			Free
painted, gilt, and ornamented				129. Cork.....			—
cwt.....	0	10	0	130. Corks, ready made.....lb	0	0	6
103. Chip or willow for plating.....			Free	squared for rounding..... cwt	0	8	0
104. Cider.....			—	Fishermen's.....			Free
105. Cinnabaris nativa.....			—	131. Corn, grain, meal, and flour, viz:			
106. Cinnamon.....lb	0	0	2	Wheat.....qr	0	1	0
107. Citrate of lime.....			Free	Barley.....	0	1	0
108. Citric acid.....			—	Oats.....	0	1	0
109. Citron, preserved with salt.....			—	Rye.....	0	1	0
110. Civet.....			—	Peas.....	0	1	0
111. Clocks, viz:—not exc. the value				Beans.....	0	1	0
of 5s. each.....dozen	0	4	0	Maize or Indian corn.....	0	1	0
exceeding the value of 5s. and				Buck wheat.....	0	1	0
not exceeding the value of				Bear or higg.....	0	1	0
12s. 6d. each.....	0	8	0	Wheat, meal and flour cwt	0	0	4½
exceeding the value of 12s. 6d.				Barley meal.....	0	0	4½
and not exceeding the value				Oat meal and groats.....	0	0	4½
of 3l each.....each	0	2	0	Rye meal and flour.....	0	0	4½
exceeding the value of 3l and				Pea meal.....	0	0	4½
not exceeding the value of 10l				Bean meal.....	0	0	4½
each.....	0	4	0	Maize or Indian corn meal....	0	0	4½
exceeding the value of 10l each	0	10	0	Buckwheat meal.....	0	0	4½
112. Cloves....lb	0	0	2	132. Cowries.....			Free
113. Coals, culm, or cinders.....			Free	133. Cotton manufactures, viz: E. L.			
114. Cobalt, ore of, oxide of.....			—	piece goods, viz: calicoes and			
115. Cochineal, granilla and dust.....			—	muslins, white, dyed or color'd			Free
116. Cochinella wood.....			—	Nankeens, not dyed or colored.			—
117. Cocoa....lb	0	0	1	dyed or colored.....			—
Husks and shells.....	0	0	0½	Handkerchiefs, dyed or colored			—
Paste or chocolate.....	0	0	2	Manufactures, not being articles			
118. Coccus indicus.....cwt	0	5	0	wholly or in part made up,			
118. Coffee.....lb	0	0	3	not otherwise charged with			
kiln-dried, roasted, or ground..	0	0	4	duty.....			—
120. Coir rope, twine, and strands....			Free	Wool. See wool.			
121. Colosynth.....			—	Yarn.....			—

	£	s.	d.		£	s.	d.
Fringe.....lb	0	0	2	ron bark, Logwood, Safflower			Free
Gloves, of cotton or thread, doz.				Bark, or of other vegetable sub-			
pairs.....	0	0	3	stances to be used for tanning			
Stockings, of cotton or thread..	0	0	6	or other manufacturing pur-			
Socks or half hose, of cotton or				poses.....			—
thread.....	0	0	3	158. Extracts or preparation of any ar-			
Articles or manufactured of cot-				ticle, not particularly enu-			
ton, wholly or in part made				merated, nor otherwise charg-			
up, not otherwise charged				ed with duty..... 100l	20	0	0
with duty.....100l	5	0	0	or, and in lieu of the above duty,			
184. Cranberries.....	Free			at the option of the importer lb	0	5	0
185. Crayons.....	—			159. Feathers for beds, in beds or other-			
186. Cream of tartar.....	—			wise.....			Free
237. Crystals, viz: Rough and cut or				Ostrich, dressed.....	0	3	0
manufactured, except beads	—			undressed.....			Free
138. Cubebs.....	—			Paddy Bird, dressed.....	0	3	0
139. Cubic nitre. See nitre				undressed.....			Free
140. Cucumbers, viz: preserved in salt	—			not otherwise enumerated or de-			
141. Currants.....cwt	0	15	0	scribed, viz: dressed ..	0	3	0
and 5 per cent. thereon.				undressed.....			Free
142. Cutch.....	Free			160. Figs.....cwt	0	15	0
143. Daguerreotype plates.....lb	0	0	3	and 5 per cent. thereon.			
144. Dates.....cwt	0	10	0	161. Fig cake.....cwt	0	15	0
145. Diamonds.....	Free			162. Fish, viz: Anchovies, cod, caplin,			
146. Dice.....pair	1	1	0	eels, (shiploads and in small			
147. Diyi divi.....	Free			quantities), herrings, lobsters,			
148. Down.....	—			mackerel, oysters, salmon,			
149. Drugs, not enumerated.....	—			soles, sounds and tongues,			
150. Earthenware, not otherwise enu-				turbots, turtle, fresh and			
merated or described.....cwt	0	10	0	cured, not otherwise enum'd			Free
151. Ebony.....	Free			163. Flax, dressed, rough or undressed,			
152. Eggs.....the 120	0	0	4	tow and cotilda of ..			Free
Of and from British possessions	0	0	2½	164. Flocks for paper stainers ..			—
153. Elder-flower water.....	Free			165. Flock.....			—
154. Embroidery and needlework, viz:				166. Flower roots.....			—
Silk net, figured with the				167. Flowers, artificial, whether silk or			
needle, being imitation lace,				other materials, per cubic foot			
and articles thereof.....lb	0	10	0	as packed; no allowance for			
Cotton net, figured with the				vacant spaces cubic foot	0	12	0
needle, being imitation lace,				168. Frames for pictures, prints, draw-			
and articles thereof.....	0	8	0	ings, or mirrors.....			Free
Curtains, commonly called Swiss				169. Fruit, viz: raw, not otherwise enu-			
embroidered on muslin or				merated.....bushel	0	0	2
net.....lb	0	1	0	170. Furniture woods, not particularly			
All other embroidery not enu-				enumerated, except ash,			
merated.....100l value	10	0	0	beech, birch, elm, oak, wain-			
Of and from British possessions	5	0	0	sot.....			Free
155. Enamel.....	Free			171. Fustic.....			—
156. Essence of spruce.....100l value	10	0	0	172. Gallic powder.....			—
157. Extract of cardamoms.....	20	0	0	173. Galls.....			—
Coculus indicus.....	20	0	0	174. Gamboge.....			—
Guinea grains of paradise.....	20	0	0	175. Garanchine.....			—
Licorice.....	20	0	0	176. Garnets, cut, not set, and uncut			—
Nux vomica.....	20	0	0	177. Gauze of thread.....			—
Opium.....	20	0	0	178. Gelatine.....			—
Guinea pepper.....	20	0	0	179. Gentian.....			—
Peruvian or jesuit's bark ..	20	0	0	180. Ginger.....cwt	0	10	0
Quassia.....	20	0	0	of and from British possessions	0	5	0
Radix rhataniæ.....	20	0	0	preserved, until the 5th July,			
Vitriol.....	20	0	0	1854, inclusive.....lb	0	0	2
Chestnut bark or wood, Quercit-				from and after 5th July, 1854	0	0	1½

	£	s.	d.		£	s.	d.
181. Ginseng			Free	Goat's hair or wool. See wool.			
182. Glass, viz: Any kind of window glass, white, or stained of one color only (except plate or rolled glass,) and shades and cylinders, until the 5th April, 1855, inclusive	0	2	6	Horsehair, human, and un-enumerated			Free
from and after 5th April, 1855, until 5th April, 1857 inclusive	0	1	6	Manufactures of hair or goat's wool, or of hair or goat's wool and any other material, not particularly enumerated or otherwise charged with duty			—
from and after 5th April, 1857			Free	Manufactures of hair or goat's wool, or of hair or goat's wool and any other material, wholly or in part made up, not particularly enumerated or otherwise charged with duty	5	0	0
Flint cut glass, flint colored glass, and fancy ornamental glass, of whatever kind	0	10	0	196. Hams, of all kinds			Free
Plate glass, cast or rolled, of whatever thickness, whether silvered, polished, or rough			Free	197. Harp-strings or lute-strings silvered			—
Painted			—	198. Hats or bonnets, viz: Of chip, lb	0	2	6
White flint glass bottles, not cut, engraved, or otherwise ornamented			—	Of bast, cane, or horsehair	0	2	6
Beads and bugles. See beads.				Of straw	0	2	6
Wine glasses, tumblers, and all other white flint glass goods not cut, engraved, or otherwise ornamented			—	Of felt, hair, wool, or beaver each	0	1	0
Bottles of glass covered with wicker (not being cut glass) or of green or common glass			—	199. Hats of silk or silk shag, laid upon felt, linen, or other material	0	1	0
Articles of green or common glass			—	200. Hay			Free
Manufactures, not otherwise enumerated or described, and old broken glass fit only to be re-manufactured			—	201. Heath for brushes			—
183. Glue and clippings or waste of any kind fit only for glue			—	202. Hellebore			—
184. Gold, leaves of, ore of, and ore of which the greater part in value is gold			—	203. Hemp, viz: Dressed, rough or undressed			—
185. Grains, Guinea, and of paradise				Tow and codilla of Hemp			—
cwt	0	15	0	Jute			—
186. Grapes	0	0	2	Other vegetable substances of the nature and quality of undressed hemp, and applicable to the same purposes			—
187. Grease			Free	204. Hides, not tanned, tawed, curried, or in any way dressed, dry, and wet			—
188. Greaves for dogs, and tallow			—	Tawed, curried, or in any way dressed, not being varnished, japanned, or enamelled, or if varnished, japanned, or enamelled			—
189. Guano			—	Loth Hides			—
190. Gum, viz: Animi, copal, Arabic, senegal, lac dye, seed lac, shellac, stick lac, ammoniacum, assafetida, euphorbium, guaiacum, kino, mastic, tragacanth			—	Muscovy or Russia hides, or pieces thereof, tanned, colored, shaved, or otherwise dressed.			—
Unenumerated			—	Hides or pieces thereof, raw or undressed, unenumerated, or in any way dressed, not otherwise enumerated			—
191. Gunpowder			—	Tails, buffalo, bull, cow, or ox.			—
192. Gun stocks in the rough, of wood			—	Tanned, not otherwise dressed.			—
193. Gutta Percha			—	205. Hones			—
Manufactures of, not moulded, such as bands, sheets, soles, tubing	0	5	0	206. Honey			—
Articles moulded	0	0	2	207. Hoofs of Cattle			—
194. Gypsum			Free	208. Hoops of wood. See wood.			
195. Hair, viz: Camel's hair or wool			—	209. Hops		2	5 0
Cow, ox, bull, or elk hair			—	210. Horns, horn tips, and pieces of horn			Free
				211. Ice			—

	£	s.	d.		£	s.	d.
212. Indigo	Free			ed shoes and clogs	0	5	0
213. Ink, for printers, and Indian . .	—			If trimmed or lined with fur or any other trimmings	0	6	0
214. Ink, unwrought and wrought . .	—			Women's shoes of silk, satin, jean, or other stuff, kid, morocco, or leather	0	4	6
215. Iron, ore of, pig, bars, unwrought, wire, rough castings, bloom, chromate of, slit or hammered into rods, cast, hoops, old broken, and old cast iron	—			If trimmed or lined with fur or any other trimmings	0	5	0
216. Iron and steel, wrought or manufactured, viz: Machinery, wrought castings, tools, cutlery, and other manufactures of iron or steel, not enumerated, ... cwt	0	2	6	Girls' boots, shoes, and calashes, not exceeding 7 in. in length, to be charged two-thirds the above duties.			
Fancy ornamental articles of iron or steel	0	15	0	Men's boots and shoes: If the quarter do not exceed 2½ in., or the vamp 4 in. in height from the sole inside, 40s. pairs	0	7	0
217. Isinglass	Free			If either the quarter or vamp exceed the above dimensions, but do not exceed six in. in height from the sole inside	0	10	6
218. Jalap	—			If either the quarter or vamp do exceed six in. in height from the sole inside	0	14	0
219. Japanned or lacquered ware, 100l value	10	0	0	Boy's boots, not exceeding seven in. in length	0	9	4
220. Jet	Free			Shoes, not exceeding seven in. in length	0	4	8
221. Jewels, emeralds, and all other precious stones, set, 100l value	10	0	0	Boot fronts, not exceeding nine in. in height	0	1	9
Unset	Free			Exceeding nine in. in height	0	2	9
222. Juice of lemons, limes, or oranges	—			Boot Backs	0	1	6
223. Kernels. See nuts	—			Cut into shapes cwt	0	10	0
224. Kingwood	—			Gloves of leather, the following duties, with 5 per cent. thereon, viz: Habit mitts, dozen pairs	0	2	4
225. Lace, and articles thereof, viz: Mohair or worsted . . . lb	0	1	0	Gloves	0	3	6
Thread or cotton pillow lace (not being Brussels point or Saxon bone lace), not exceeding one inch in width	1	0	0	Men's gloves	0	3	6
Exceeding one inch in width	2	0	0	Women's gloves or mitts	0	4	6
Silk pillow lace (not being Saxon wire ground lace) and application	1	10	0	Any articles made of leather, or any manufacture whereof leather is the most valuable part, not otherwise enumerated or described, 100l value	10	0	0
Silk Saxon wire ground lace, and all lace known as Maltese	0	8	0	234. Leaves of gold. See gold.			
Brussels point and other lace, made by hand, not otherwise charged with duty, 100l val.	10	0	0	235. Leaves of roses	Free		
226. Lacquered ware. See japanned ware.				236. Leeches			
227. Lamp black	Free			237. Lentils. See seeds.			
228. Lapis calaminaris	—			238. Lignum vite			
229. Lard	—			239. Linen or linen and cotton manufactures, viz: Cambric handkerchiefs, hemmed or hemstitched, not trimmed, doz.	0	2	6
230. Latten	—			Stays doz. pairs	0	4	0
Shaven	—			Articles, manufactures of linen, or of linen mixed with cotton or wool, wholly or in part made up, not particularly enumerated, or otherwise charged with duty 100l value	5	0	0
Wire	—			Cambrics and lawns, commonly			
231. Lavender flowers	—						
232. Lead, ore of, black, pig and sheet, red, white, chromate of, ...	—						
Manufactures of, not otherwise enumerated, ... cwt	2	0	0				
233. Leather manufactures, viz: Boots, shoes, and calashes, viz: Women's boots and calashes doz. pairs	0	6	0				
If lined or trimmed with fur or other trimmings	0	7	6				
Shoes, cork or double soles, quilt-							

	£	s.	d.		£	s.	d.
called French lawns, plain . .			Free	other sort			Free
Bordered handkerchiefs, Lawns				264. Medlars bushel	0	0	8
of any sort, not French, Dam-				265. Mercury, prepared			Free
asks, Damask diaper, and				266. Metal, bell			—
Sails of all sorts	—			Leaf, not gold			—
Plain linens and diaper, wheth-				267. Mill-boards lbs	0	0	2½
er checkered or striped with				268. Minerals and fossils, unenumerated			Free
dyed yarn or not	—			269. Models of cork or wood . .			—
Manufactures of linen, or of lin-				270. Morphia and its salts . . lb	0	5	0
en mixed with cotton or with				271. Moss, viz: Lichen Islandicus .			Free
wool, not particularly enu-				Rock, for dyers' use			—
merated or otherwise charged				Other than rock or Iceland moss			—
with duty, not being articles				272. Mother-o'-Pearl shells . . .			—
wholly or in part made up . .	—			273. Musical instruments, viz: Musical			
240. Licorice paste cwt	1	0	0	boxes, small, not exceeding			
of and from British possessions	0	10	0	four inches in length, the air	0	4	8
Powder	1	0	0	Large	0	0	8
of and from British possessions	0	15	0	Overtures or extra accompani-			
Root, until 5th April, 1857, in-				ments	0	2	6
clusive	0	5	0	Pianofortes, horizontal grand			
from and after 5th April, 1857			Free	each	3	0	0
Juice cwt	1	0	0	Upright or square	2	0	0
241. Licharge			Free	Harmoniums or seraphines, not			
242. Live creatures illustrative of natu-			—	exceeding three stops	0	12	0
ral history	—			Four stops and not exceeding			
243. Logwood	—			seven stops	1	4	0
244. Lucifers, of wood, in boxes, con-				Eight stops and not exceeding			
taining not more than 100				eleven stops	1	10	0
matches gross of boxes	0	0	8	Exceeding eleven stops	2	0	0
In boxes, containing more than				Accordeons, commonly called			
100 matches	0	0	8	Chinese 100 notes	0	1	0
Vesta, of wax, in boxes, not ex-				Other sorts, including flutinas			
ceeding 1,000 matches, doz.				and common German concer-			
boxes	0	0	6	tinas	0	5	0
In boxes exceeding 1,000 match-				Concertinas, octagon form, not			
es, ... 1,000 matches	0	0	0½	common German, ... each	0	4	0
245. Macaroni. See vermicelli.				Brass instruments, all sorts lb	0	0	2
246. Mace lb	0	1	0	Musical instruments, not other-			
247. Madder and Madder Root . .			Free	wise enumerated or described			
248. Magna Græcia ware	—			100£ value	10	0	0
249. Mahogany	—			274. Musk			Free
250. Mandioca flour cwt	0	0	4½	275. Mustard, flour cwt	0	1	6
251. Manganese, ore of			Free	Mixed or manufactured, except			
252. Manna	—			flour	0	5	0
253. Manna croup cwt	0	0	4½	276. Myrobolanes. See berries.			
254. Manures not enumerated . .			Free	277. Myrrh			Free
255. Manuscripts	—			278. Naptha			—
256. Maps or charts, or parts thereof,				279. New Zealand wood			—
plain or colored	—			280. Nicaragua wood			—
257. Maple wood	—			281. Nickel, ore of, metallic, and ox-			
258. Marmalade, until 5th July, 1854,				ide of, refined			—
inclusive lb	0	0	2	Arseniats of, in lumps or powder,			
From and after 5th July, 1854	0	0	1½	being in an unrefined state . .			—
259. Mats and matting			Free	282. Nitre, viz: cubic nitre . . .			—
260. Mattresses	—			283. Nutmegs, except those commonly			
261. Mead or metheglin	—			called wild lb	0	1	0
262. Meat, salted or fresh, not otherwise				Wild, in the shell	0	0	8
described	—			Not in the shell	0	0	5
Preserved in any other way				284. Nuts, viz: Chestnuts			Free
than salted	—			Cocoanuts			—
263. Medals of gold or silver, or any				Pistachio nuts			—

	£	s.	d.		£	s.	d.
Small nuts bushel	0	1	0	Waste paper, or paper of any other sort, not particularly enumerated or described, nor otherwise charged with duty lb.	0	0	2½
Walnuts	0	1	0	Gilt, stained, colored, embossed, and all Fancy kinds, not being paper hangings	0	0	2½
Nuts and kernels of walnuts, of peach-stones, and all nuts and kernels unenumerated, commonly used for expressing oil therefrom	Free			306. Parchment	Free		
Nuts and kernels unenumerated	—			307. Partridge wood	—		
285. Nux vomica	0	2	0	308. Pasteboard	0	0	2½
286. Oakum	Free			309. Pearls	Free		
287. Ochre	—			310. Pears, raw	0	0	3
288. Oil of almonds	0	0	1	dried	0	1	0
Animal	Free			311. Pencils of slate and not of slate	Free		
Bays	0	0	1	312. Pens	—		
Castor	Free			313. Pepper of all sorts	0	0	6
Chemical, essential, or perfum'd, viz. Bergamot, ...	0	1	0	and 5 per cent. thereon	—		
Caraway, Cassia, Cloves, Lavender, Lemon, Mint & Spearmint Oil or otto of roses, Peppermint, Spike, Thyme, unenumerated	0	1	0	314. Percussion caps ..	1,000	0	0
Cocoonut, Hempseed, Lard, Linseed, Olive, Palm, Paran, Rapeseed, Rock, Rosin, Seed (unenumerated), Train oil or blubber, Spermacetti (or head matter), Walnut, Or spirit of turpentine, (not particularly enumerated or described, nor otherwise charged with duty)	Free			315. Perfumery, not otherwise enumerated	0	0	2
289. Oilseed cake	—			316. Perry	Free		
290. Oilcloth, for table covers, sq. yd.	0	0	1	317. Pewter, manufactures of, not otherwise enumerated	0	2	0
291. Olibanum	Free			318. Phosphorus	Free		
292. Olives	—			319. Pickles, preserved in vinegar, gall and vegetables, preserved in salt	Free		
293. Olive wood ..	—			320. Pictures	—		
294. Onions	0	0	1	321. Pimento ..	0	5	0
295. Opium	0	1	0	322. Pink root	Free		
296. Orange-flower water	Free			323. Pipes of clay. See Tobacco-pipes.	—		
297. Oranges and Lemons .. bushel	0	0	8	324. Pitch, and Burgundy	—		
Peel of, viz. Orange and Lemon peel	Free			325. Plantains	—		
298. Orchal ..	—			326. Plants, shrubs, and trees, alive	—		
299. Ore, unenumerated	—			327. Plaster of Paris	—		
300. Orpiment	—			328. Plate, of gold, ...	1	1	0
301. Orris root	—			of silver, gilt or ungilt	0	1	8
302. Orsedew	—			battered	Free		
303. Painters' colors, unenumerated, viz. unmanufactured and manufactured	Free			329. Platina, and ore of	—		
304. Palmetto thatch	—			330. Plating, or other manufactures of straw, chip, or other materials, to be used in, or proper for making or ornamenting hats or bonnets, not otherwise enumerated or charged with duty lb.	0	2	0
Manufactures of	—			Cordonet, single, and twist of straw, or of other materials	0	0	6
305. Paper, viz. Brown paper, made of old rope or cordage only, without separating or extracting the pitch or tar therefrom, and without any mixture of other materials therewith	0	0	2½	Willow squares	0	0	1
Printed, painted, or stained paper hangings, or flock paper, square yard.	0	0	1	331. Plums, com. called French plums, and prunellos	0	15	0
				dried or preserved (except in sugar), not otherwise described	0	15	0
				Preserved in sugar, until 5th July, 1854, inclusive	0	0	2
				from and after 5th July, 1854	0	0	1½
				332. Pollard	Free		
				333. Pomatum	0	0	2
				334. Pomegranates	Free		
				Peel of	—		
				335. Pork, salted (not hams) ..	—		
				Fresh	—		

	£	s.	d.		£	s.	d.
136. Potatoes			Free	358. Rose water			Free
137. Potato flour cwt.	0	0	4½	359. Rose wood			—
138. Pots, viz. Melting-pots for gold-smiths			Free	360. Rosin			—
of stone ..			—	Oil of. See Oil.			—
139. Poultry and game, alive or dead, including rabbits ..			—	361. Saccharum saturni			Free
140. Powder, viz. Hair-powder lb.	0	0	2	362. Safflower			—
Perfumed	0	0	2	363. Saffron			—
Not otherwise enumerated or described, that will serve the same purpose as starch cwt.	0	0	4½	364. Sago	cwt.	0	0 4½
141. Prints and drawings, viz. plain or colored	0	0	3	365. Sal, viz. Ammoniac			Free
Admitted under treaties of international copyright ..	0	0	1½	Limonum			—
142. Prunes	cwt.	0	7 0	Prunella			—
143. Prussiate of Potash			Free	366. Salep, or salop			—
144. Puddings. See sausages.			—	367. Salicine	oz.	0	0 3
145. Purple wood			—	368. Salt			Free
146. Quassia	cwt.	0	1 0	369. Saltpetre			—
147. Quicksilver			Free	370. Sanguis draconis			—
148. Quills, viz. goose and swan ..			—	371. Santa Maria wood			—
149. Quinces	bushel	0	0 3	372. Sapan wood			—
150. Quinine, sulphate of	oz.	0	0 6	373. Sarsaparilla			—
151. Radix contrayervæ, Enulæ campanæ, Eringii, Ipecacuanhæ, Rhataniæ, Senekæ, Serpentariæ or Snakeroot			Free	374. Sassafras			—
152. Rags, viz. rags, old ropes or junk, old fishing nets, fit only for making paper or pastewood, woollen rags, pulp of rags ..			—	375. Satin wood			—
153. Raisins	cwt.	0	10 0	376. Sauces, not otherwise enum. lb.	0	0	1
154. Rape of grapes			Free	377. Saunders, viz. red, white, or yellow ..			Free
155. Red wood or Guinea-wood			—	378. Sausages or puddings			—
156. Rhubarb			—	379. Scaleboards	cwt.	0	1 0
157. Rice, viz. not rough or in the husk, cwt.	0	4	4½	380. Scammony			Free
Rough and in the husk qr.	0	0	9	381. Seeds, viz. Acorns ..			—
Dust, for feeding cattle, ..			Free	Aniseed, burnet, Beans (kidney or French), Canary ..			—
Upon exportation, from the United Kingdom, of any foreign rice, or paddy cleaned therein, which shall have paid the duties payable on the importation thereof, and having been deposited in some bonded warehouse within one calendar month from the date of such payment, shall have there remained secured until the time of exportation, the exporter making declaration that such rice was cleaned from rough rice or paddy upon which the duties had been paid, there shall be allowed and paid for every hundred weight thereof a drawback equal in amount to the duty paid on every four bushels of the rough rice or paddy from which the same shall have been cleaned.				Carraway	cwt.	0	5 0
				of and from Brit. Possessions ..		0	2 6
				Carrot, Clover, Colchicum, Cole, Coriander, Croton, Cummin, Dari, Fenugreek, Flax, Forest, Garden (unenumerated), Grass seeds of all sorts, Hemp, Leek, Lentils, Lettuce, Linseed, Lucerne, Lupine, Maw, Millet, Mustard, Onion, Parsley, Poppy, Quince, Rape, Sesamum, Shrub or tree, Tares, Trefoil, and Worm ..			Free
				All seeds, unenumerated, commonly used for expressing oil therefrom			—
				All other seeds not particularly enumerated or described, nor otherwise charged with duty ..			—
				382. Semolina	cwt.	0	0 4½
				383. Senna			Free
				384. Ships, their tackle, apparel, and furniture (except sails), broken up or to be broken up: Foreign 100l value		5	0 0
				British ships, or vessels entitled to be registered as such, not having been built in the United Kingdom			Free
				385. Shumach			—
				386. Silk, viz. Knots or husks of silk and waste silk			—
				Raw silk			—

	£	s.	d.		£	s.	d.		
Thrown silk, not dyed, singles	Free			broad stuffs	lb.	0	9	0	
Tram	—			Articles thereof, not otherwise					
Organ-				enumerated	....	0	10	0	
zine or crape	—			or, and at the option of the off-					
Dyed, single or tram	—			icers of the Customs, 100 <i>l</i> val.	15	0	0		
Organzine or crape	—			Gauze, mixed with silk, satin, or					
Millinery of silk, or of which the				other materials, the gauze be-					
greater part of the material is				ing in less proportion than					
silk, viz. Turbans or caps, each	0	3	6	one-half part of the fabric,					
Hats or bonnets	0	7	6	viz. Broad stuffs	lb.	0	9	0	
Dresses	1	10	0	Articles thereof, not otherwise					
Corahs, choppas, bandannas, and				enumerated	....	0	10	0	
Tumore cloths, viz. in pieces				or, and at the option of the off-					
not exc. 5½ yards length, the				icers of the Customs, 100 <i>l</i> val.	15	0	0		
piece	0	0	4	Velvet, plain, or figured, viz.					
exc. 5½ and not exc. 6½ yds.	0	0	6	Broad stuffs	lb.	0	9	0	
exc. 6½ and not exc. 7½ yds.	0	0	8	Articles thereof, not otherwise					
exc. 7½ and not exc. 8½ yds.	0	0	9	enumerated	..	0	10	0	
exc. 8½ and not exc. 9½ yds.	0	0	10	or, and at the option of officers					
and for every additional yd.				of the Customs 100 <i>l</i> value	15	0	0		
in length	0	0	1½	Broad stuffs, the foundation of					
China crape shawls, scarfs, and				which is wholly comp. of					
handkerchiefs, viz. Plain and				cotton, or other materials					
damaak	lb.	0	3	than silk		lb.	0	3	0
Embroidered	.....	0	5	Ribbons, plain silk, of one color					
Damaak	running yard	0	0	only	....	0	6	0	
Pongees, viz. in pieces not ex-				Plain satin, of one color only		0	8	0	
ceed. 15 yds. in length	piece	0	2	Silk or satin, striped, figured, or					
exc. 15 yds. and not exc. 21 yds.		0	3	brocaded, or plain ribbons, of					
exc. 21 yds. and not exc. 31 yds.		0	5	more than one color	..	0	10	0	
Handkerchiefs, plain and fig-				Gauze or crape, plain, striped,					
ured, in pieces not exceed-				figured, or brocaded	....	0	14	0	
ing 9 yards in length		0	1	Gauze mixed with silk, satin, or					
exceeding 9 yards and not ex-				other materials, the gauze be-					
ceeding 18 yards		0	3	ing more than half the fabric		0	12	0	
Manufactures of silk, or of silk				Velvet, or silk embossed with					
and any other material, not				velvet	....	0	10	0	
being articles wholly or in				the foundation of which is					
part made up, not particu-				wholly composed of cotton,					
larly enumerated or oth-				or other materials than silk		0	3	6	
erwise charged with duty,				Fancy silk, net, or tricot	..	0	3	0	
100 <i>l</i> value	15	0	0	Plain silk lace or net called tulle		0	3	0	
of and from a Brit. Possession	5	0	0	Manufactures of silk, or of silk					
Articles, manufactures of silk,				mixed with any other mate-					
or of silk and any other ma-				rials, called plush	..	0	3	0	
terial, not particularly enu-				Black plush, commonly used for					
merated or otherwise charged				making hats	..	0	1	0	
with duty	....	15	0	Parasols and umbrellas, each		0	1	0	
of and from a British Pos-				Damaak of silk and wool, or of					
session	....	5	0	silk and other materials, for					
Manufactures of silk, or of silk				furniture		lb.	0	0	10
mixed with metal, or any oth-				Manufactures of silk, or of silk					
er material, the produce of				mixed with any other mate-					
Europe, viz. Silk or satin,				rials, not particularly enu-					
plain, striped, figured, or bro-				merated or charged with du-					
cadet, viz. Broad stuffs	lb.	0	5	ty	100 <i>l</i> value	15	0	0	
Articles thereof, not otherwise				387. Silkworm gut	..			Free	
enumerated	....	0	6	388. Silver ore, or ore of which the				—	
or, and at the option of the off-				greater part in value is silver				—	
icers of the Customs, 100 <i>l</i> val.	15	0	0	389. Skins, furs, pelts, and tails, viz.				—	
Gauze, or crape, plain, striped,				Badger, undressed	....			—	
figured, or brocaded, viz.				Bear, undressed	.....			—	

£	s.	d.		£	s.	d.
			Beaver			
			Cat			
			Chinchilla			
			Cony			
			Deer			
			Indian, half dressed			
			Deer, Indian, tanned, tawed, or in any way dressed			
			Dog, in the hair, not tanned, tawed, or in any way dressed			
			Dog-fish and Elk, undressed			
			Ermine, dressed and undressed			
			Fisher, undressed			
			Fitch, undressed			
			Fox, undressed			
			Tails			
			Goat, raw or undressed			
			tanned, tawed, or in any way dressed			
			Goose, Hare, Hulse, and Kan- garoo, all undressed			
			Kid, in the hair, undressed			
			dressed, and dyed or colored			
			Kolinski, undressed			
			Lamb, undressed in the wool			
			tanned or tawed, and dyed or colored			
			dressed in oil			
			Leopard, Lion, Lynx, Marten, and Marten Tails, all un- dressed			
			Minx, dressed and undressed			
			Mole, undressed			
			Musquash, undressed			
			Nutria, undressed			
			Otter, undressed			
			Ounce, undressed			
			Panther, undressed			
			Pelts, undressed			
			tanned, tawed, or in any way dressed			
			Raccoon, undressed			
			Sable, undressed			
			Tails or tips, undressed			
			Seal, in the hair, not tanned, tawed, or in any way dressed,			
			Sheep, undressed in the wool			
			tanned or tawed			
			dressed in oil			
			Squirrel or Calabar, undressed			
			tawed			
			tails, undressed			
			Swan, undressed			
			Tiger			
			Weasel			
			Wolf			
			tawed			
			Wolverines, undressed			
			Skins and furs, or pieces of skins and furs unenumerated, viz. raw or undressed			
			tanned, tawed, curried, or in any way dressed			
			Articles manufactured of skins and furs			
			390. Smalts			
			391. Soap, viz. Hard	cwt.	0	0
			Soft		0	0
			Naples		0	0
			Scented or fancy soap	lb.	0	0
			392. Soy	gallon	0	0
			393. Spa ware	cubic foot	0	0
			394. Specimens of minerals or fossils			
			Illustrative of natural history			
			395. Speckled wood			
			396. Spectacles			
			397. Spelter or zinc, crude in cakes			
			Rolled, but not otherwise man- ufactured			
			Oxide and white of			
			Rods for bolts			
			Manufactures of, not otherwise enumerated	cwt.	0	2
			398. Spermaceti			
			399. Spirits or strong waters, of all sorts, viz. for every gallon of such spirits or strong waters of any strength, not exceeding the strength of proof by Sykes's Hydrometer, and so in propor- tion for any greater or less strength than the strength of proof, and for any greater or less quantity than a gallon, viz. Spirits, not being spirits or strong waters, the produce of any British Possessions in America, or the island of Mau- ritius, or any British Possessions within the limits of the East In- dia Company's Charter, and not being sweetened spirits, or spir- its mixed with any articles, so that the degree of strength thereof cannot be exactly ascer- tained by such Hydrometer, viz.			
			Brandy	gallon	0	15
			Geneva		0	15
			Other than Brandy or Geneva		0	15
			Spirits or strong waters, the produce of any British Posses- sions in America, or the island of Mauritius, not being sweet- ened spirits, or spirits so mixed as aforesaid, viz. Rum, if im- ported into England		0	8
			If imported into Scotland		0	5
			If imported into Ireland		0	8
			Spirits, other than rum: if im- ported into England		0	8
			If imported into Scotland		0	5
			If imported into Ireland		0	8

	£	s.	d.		£	s.	d.
Rum, the produce of any British Possessions within the limits of the East India Company's Charter, in regard to which the conditions of the Act 4 Vic. Cap. 8 have or shall have been fulfilled, not being sweetened spirits, or spirits so mixed as aforesaid:				ed into the United Kingdom, mixed with any ingredient, and although thereby coming under some other denomination, except varnish, shall nevertheless be deemed to be spirits or strong waters, and be subject to duty as such.			
If imported into England ..	0	8	2	400. Sponge			Free
If imported into Scotland ..	0	5	0	401. Squilla, dried and not dried ..			—
If imported into Ireland ..	0	8	8	402. Starch, and gum of, torrifed or calcined	0	0	4½
Rum shrub, however sweetened, the produce of and imported from such Possessions, qualified as aforesaid, or of and from any British Possessions in America, or the island of Mauritius: if imported into England	0	8	2	403. Stavesacre			Free
If imported into Scotland ..	0	5	0	404. Stearine, till the 5th April, 1858, unless the duty upon tallow shall be sooner repealed, in which case the duty shall cease after the 5th April, 1850 ..	0	3	6
If imported into Ireland ..	0	8	8	405. Steel, unwrought ..			—
Spirits or strong waters (except rum), the produce of any British Possession within the limits of the East India Company's Charter, qualified as aforesaid, not being sweetened spirits, or spirits so mixed as aforesaid ..	0	15	0	manufactured or wrought. (See Iron.) ..			—
Spirits, cordials, or strong waters, not being the produce of any British Possession in America, or the island of Mauritius, nor of any British Possession within the limits of the East India Company's Charter, qualified as aforesaid, being sweetened or mixed as aforesaid; and perfumed spirits, to be used as perfumery only	1	0	0	406. Stones, viz. Stone, in lumps, not in any manner hewn ..			—
Strong waters, except rum shrub, being the produce of any British Possessions in America, or the island of Mauritius, or of any British Possessions, qualified as aforesaid, sweetened or mixed with any article as aforesaid ..	1	0	0	Slate, in rough blocks or slabs, and hewn ..			—
Cordials and liquors, except rum shrub, being the produce of any British Possession in America, or the island of Mauritius, or of any British Possession within the limits of the East India Company's Charter, qualified as aforesaid, being sweetened or mixed as aforesaid ..	0	9	0	Marble, in rough blocks or slabs, sawn into slabs, or otherwise manufactured ..			—
Spirits or strong waters import-				Limestone			—
				Asphalt rock ..			—
				Flint			—
				Feldspar and stones, for potters' use			—
				Pebble			—
				For lithography			—
				In blocks, shaped, or rough scalped ..			—
				Mill-stones, rough, shaped, or hewn ..			—
				Burr stones, rough, shaped, or hewn ..			—
				Quern stones, rough, shaped, or hewn ..			—
				Dog stones, rough, shaped, or hewn ..			—
				407. Straw or grass for plaiting ..			—
				408. Succades, including all fruits and vegetables, preserved in sugar, not otherwise charged with duty, until the 5th July inclusive ..	0	0	2
				from and after July 5, 1854 ..	0	0	1
				409. Sugar, viz. sugar or molasses the growth and produce of any British Possession, into which the importation of foreign sugar is prohibited, being imported from such British Possession, viz. Candy, brown or white, refined sugar, or sugar rendered by any process, equal in quality thereto, cwt.	0	13	4

	£	s.	d.		£	s.	d.
White clayed sugar, or sugar rendered by any process equal in quality thereto, not being refined or equal to refined cwt.	0	11	8	not being equal in quality to brown clayed sugar, until July 5, 1854, inclusive	0	12	0
Muscovado, or any other sugar not being equal in quality to white clayed	0	10	0	from and after July 5, 1854	0	10	0
Molasses	0	3	9	Molasses until July 5, 1854, inclusive	0	4	6
Sugar or molasses the growth and produce of any other British Possession, being imported from such British Possession, viz. Candy, brown or white, refined sugar, or sugar rendered by any process equal in quality thereto, until July 5, 1854, inclusive	0	15	4	from and after July 5, 1854	0	3	9
from and after July 5, 1854	0	13	4	The following duties shall be drawn back upon removal to the Isle of Man, on such conditions as the Commissioners of Her Majesty's Treasury may direct, or upon exportation to foreign parts, of the several descriptions of refined sugar herein-after mentioned, made in the United Kingdom from sugar on which the duties of importation shall have been paid:			
White clayed sugar, or sugar rendered by any process equal in quality thereto, not being refined, or equal to refined, until July 5, 1854, inclusive	0	12	10	Upon refined sugar, in loaf, complete and whole, or lumps duly refined, having been perfectly clarified and thoroughly dried in the stove, and being of an uniform whiteness throughout, or sugar pounded, crushed, or broken, or sugar candy	0	12	6
from and after July 5, 1854	0	11	8	Upon bastard or refined sugar, broken in pieces, or being ground or powdered sugar, or such sugar pounded, crushed, or broken	0	10	0
Brown clayed sugar, or sugar rendered by any process equal in quality thereto, and not equal to white clayed, until July 5, 1854, inclusive	0	11	10	410. Sulphur impressions	Free		
from and after July 5, 1854	0	10	0	411. Sweet wood	—		
Muscovado, or any other sugar, not being equal in quality to brown clayed sugar, until July 5, 1854, inclusive	0	11	0	412. Talc	—		
from and after July 5, 1854	0	10	0	413. Tallow cwt.	0	1	6
Molasses until July 5, 1854, inclusive	0	4	2	of and from British Possessions	0	0	1
from and after July 5, 1854	0	3	9	Vegetable	Free		
Sugar or molasses, the growth and produce of any foreign country, and all sugar or molasses not otherwise charged with duty, viz. Candy, brown or white, refined sugar, or sugar rendered by any process equal in quality thereto, until July 5, 1854, inclusive . .	0	17	4	414. Tamarinds	—		
from and after July 5, 1854	0	13	4	415. Tapioca cwt.	0	0	4½
White clayed sugar, or sugar rendered by any process equal in quality thereto, not being refined, or equal to refined, until July 5, 1854, inclusive	0	14	0	416. Tar	Free		
from and after July 5, 1854	0	11	8	Barbadoes	—		
Brown clayed sugar, or sugar rendered by any process equal in quality thereto, and not equal to white clayed, until July 5, 1854, inclusive	0	13	0	417. Tares. See seeds.	—		
from and after July 5, 1854	0	10	0	418. Tarras	—		
Muscovado, or any other sugar,				419. Tartaric acid	—		
				420. Tea, until April, 1854, inclusive, lb.	0	1	10
				from and after April 5, 1854, until April 5, 1855, inclusive	0	1	6
				from and after April 5, 1855, until April 5, 1856, inclu.	0	1	3
				from and after April 5, 1856	0	1	0
				Without any allowance for draft.			
				421. Teasels	Free		
				422. Teeth, viz. Elephants', sea-cow, sea-horse or sea-morse	—		
				423. Telescopes	—		
				424. Terra, viz. Japonica, sienna, verde, umbra	—		
				425. Thread, not otherwise enumerated or described	—		
				426. Tiles	—		
				427. Tin, ore and regulus of, in blocks, ingots, bars, or slabs	—		
				foil cwt.	0	10	0

	£	s.	d.		£	s.	d.
manufactures of, not otherwise enumerated	0	10	0	gold:— Open faces	0	2	6
428. Tincal, unrefined. See Borax.				Hunters'	0	8	6
429. Tobacco, the following duties, with 5 per ct. thereon, viz. Unmanuf. stemmed or stripped, lb.	0	8	0	Repeaters	0	8	0
unstemmed	0	8	0	455. Water, Cologne, the flask (thirty of such flasks containing not more than one gallon) each	0	0	8
manufactured, or segars	0	9	0	When not in flasks (as perfumed spirit)	1	0	0
Snuff	0	6	0	Mineral	Free		
Stalks, and flour of manufactured in the United Kingdom, made into cut, shag, roll, or carrot tobacco, or cigars, such cigars, when exported as merchandize, being packed in cases not less than 100 lbs. net weight, a drawback shall be allowed on exportation or shipment as stores	0	2	7½	459. Wax, viz.:— Bleached, unbleached, myrtle, sealing, and vegetable	—		
430. Tobacco-pipes of clay	Free			460. Weld	—		
431. Tongues	—			461. Whale fins	—		
432. Torsal	—			462. Whipcord	—		
433. Tortoise or turtle shell, unmanuf.	—			463. Wine, of and from foreign countries, and 5 per cent. thereon, viz.:— Red	0	5	6
434. Toys, viz. Marbles cwt.	0	1	0	White	0	5	6
All other toys cubic foot	0	0	4	Lees of such wine	0	5	6
435. Truffles	Free			The growth and produce of any British possession, and imported direct from thence, and 5 per cent. thereon:— Red, White, lees of such wine	0	2	9
436. Tulip wood	—			The full duties on wine may be drawn back upon reexportation or shipment as stores, but no drawback allowed on lees of wine.			
437. Tumeric	—			464. Wire, viz., gilt or plated, and silver	Free		
438. Turnery, not otherwise described, cubic foot	0	0	4	Copper or brass. See copper and brass respectively.			
439. Turpentine	Free			465. Wood	—		
Of Venice, Scio, or Cyprus	—			466. Wood and timber, the following duties, with 5 per cent. thereon, on all wood and timber the produce of British Possessions, viz.:— Timber or wood, not being deals, battens, boards, staves, handspikes, oars, lathwood, or other timber or wood sawn, split or otherwise dressed, except hewn, and not being timber or wood otherwise charged with duty, . . load of cubic feet	0	7	6
Oil, or spirit of. See Oil.	—			Of and from British possessions	0	1	0
440. Twine	—			Deals, battens, boards, or other timber or wood sawn or split, and not otherwise charged with duty	0	10	0
441. Ultra marines	—			Of and from British possessions	0	2	0
442. Valonia	—			Or, in lieu of ascertaining the cubical contents in pile, the importer may have the option, at the time of passing the first entry, in respect of planks, deals, deal ends, battens, and battens ends, not the produce of the British possessions, of entering the same by tale upon a computation of their cubic content, calculated according to the under-mentioned scale, specifying in each entry the number and dimensions of the several			
443. Vanelloes	—						
444. Varnish, containing any quantity of alcohol or spirit, gallon	0	12	0				
not otherwise described	Free						
445. Vases, viz.:— Ancient, not of stone or marble	—						
446. Vegetables, all, not otherwise enumerated or described, preserved in salt	—						
447. Vellum	—						
448. Veneers	0	1	0				
449. Verdigris	Free						
450. Verjuice	—						
451. Vermicelli and macaroni . . cwt.	0	1	0				
452. Vermilion	—						
453. Vinegar	0	0	2				
454. Wafers	Free						
455. Walnut wood	—						
456. Washing balls	0	0	2				
457. Watches, of gold, silver, or any other metal, exceeding the value of 10l each	1	0	0				
Other watches, viz.:— Gold, open faces	0	5	0				
Hunters'	0	7	6				
Repeaters	0	15	0				
Silver, or any other metal not							

pieces included therein; and the duties imposed thereon by this act shall be ascertained, computed, and charged upon the planks, deals, deal

ends, battens, and batten ends, included in such entry on the cubical contents thereof, computed in conformity with the said scale.

	PLANKS.		DEALS.		BATTENS.		
	3 by 11 inches, not above 8½ by 11½ inches.		3 by 9 inches, not above 3½ by 9½ inches.		3 by 7 inches, not above 3½ by 7½ inches.	2½ by 7 inches, not above 2½ by 7½ inches.	2½ by 6½ inches, not above 2½ by 6½ inches.
	Cubic Feet.		Cubic Feet.		Cubic Feet.	Cubic Feet.	Cubic Feet.
Not above 4 feet in length, the 120	115		95		73	61	57
Above 4 feet and not above 5 feet..	144		118		91	77	71
— 5 — 6 —	173		142		110	92	86
— 6 — 7 —	202		165		128	107	100
— 7 — 8 —	231		189		146	123	114
— 8 — 9 —	260		213		165	138	128
— 9 — 10 —	288		236		183	153	143
— 10 — 11 —	317		260		201	169	157
— 11 — 12 —	346		284		220	184	171
— 12 — 13 —	375		307		238	200	185
— 13 — 14 —	404		331		256	215	200
— 14 — 15 —	433		354		274	230	214
— 15 — 16 —	462		378		293	246	228
— 16 — 17 —	490		402		311	261	242
— 17 — 18 —	519		425		329	276	257
— 18 — 19 —	548		449		348	292	271
— 19 — 20 —	577		473		366	307	285
— 20 — 21 —	606		496		384	322	300

	£	s.	d.
Staves, exceeding 72 inches in length, 7 inches in breadth, or 3½ in thickness, load of fifty cubic feet	0	9	0
Of and from British possessions	0	2	0
Staves, not exceeding 72 inches in length, nor 7 inches in breadth, nor 3½ in thickness	Free		
Birch and fir, hewn, not exceeding 3 feet in length, nor exceeding 8 inches square, imported for the sole purpose of making herring barrels for the use of the fisheries	—		
Firewood .. fathom of 216 cubic feet	0	6	0
Of and from British possessions	Free		
Handspikes, not exceeding 7 ft. in length, the 120	0	6	0
Of and from Br. poss.	0	0	6
Exceeding 7 feet in length	0	12	0
Of and from Br. poss.	0	1	0
Hoops	Free		
Knees, under 5 inches square, the 120	0	3	0
Of and from Br. poss.	0	0	3
5 and under 8 inches sq.	0	12	0
Of and from Br. poss.	0	1	0
Lathwood, fathom of 216 cubic feet	0	12	0
Of and from Br. poss.	0	1	0
Oars .. the 120	2	5	0
Of and from Br. poss.	0	3	9
Spars or poles, under 22 feet in			

	£	s.	d.
length, and under 4 inches in diameter	0	6	0
Of and from Br. poss.	0	0	6
22 feet in length and upwards, and under 4 inches in diameter	0	12	0
Of and from Br. poss.	0	1	0
Of all lengths, 4 and under 6 inches in diameter	1	4	0
Of and from Br. poss.	0	2	0
Spokes for wheels, not exceeding 2 feet in length, the 1,000	1	4	0
Of and from Br. poss.	0	1	0
Exceeding 2 ft. in length	2	8	0
Of and from Br. poss.	0	2	0
Teak	Free		
Waste wood, viz., billet wood, or brush wood, used for the purpose of stowage	—		
For ship-building:—			
Stringy bark, red and blue gum, green hart, mora and locust woods, and woods formerly admitted at the same duty as teak	—		
Treenails of stringy bark, red and blue gum, and locust woods, and all treenails of and from Br. possessions	—		
Shovel hilts	—		
Planed or otherwise dressed or prepared for use, and not particularly enumerated or otherwise charged with duty			
cubic foot	0	0	2
And further .. 100l. value	10	0	0

	£	s.	d.		£	s.	d.
Of and from British Possessions ..	5	0	0	Camel or mohair and Raw linen	Free		
467. Wool, viz. Alpaca, and the Llama tribe ..	Free			Of silk and worsted, spun together, not dyed	—		
Beaver, and cut and combed ..	—			Worsted yarn, fit and proper for embroidery lb.	0	0	6
Cony wool, Cotton Wool, and Waste of cotton wool ..	—			Raw, not dyed, or only partially dyed, and not being fit or proper for embroidering or other fancy purposes	Free		
Goats' wool or hair, Hares' wool, Sheep or Lambs' wool ..	—			470. Yeast, dried	—		
468. Woollens, viz. Manufactures of wool (not being goats' wool), or of wool mixed with cotton, not particularly enumerated, and not otherwise charged with duty ..	—			471. Zaffre ..	—		
Articles or manufactures of wool (not being goats' wool), or of wool mixed with cotton, viz.				472. Zebra wood	—		
Carpets and rugs sq. yard	0	0	6	473. Goods, being either in part or wholly manufactured, and not being enumerated or described, nor otherwise charged with duty, and not prohibited to be imported into or used in Great Britain or Ireland 100l value	10	0	0
Shawls, scarfs, and handkerchiefs, plain lb.	0	0	4	474. Goods, not being either in part or wholly manufactured, not enumerated or described, nor otherwise charged with duty, and not prohibited to be imported into or used in Great Britain or Ireland	Free		
Printed lb.	0	0	8				
Gloves dozen pairs	0	0	8				
Wholly or in part made up, not otherwise charged with duty 100l value	5	0	0				
469. Yarn : Cable yarn	Free						

Roads, Canals, and Railways.—Connected intimately with the commerce and manufacturing industry of the country, is the immense facility of internal communication which the United Kingdom possesses, and which is so peculiarly a feature in British enterprise. Railroads, canals, and turnpike roads traverse, in every direction, the whole surface of the land. These works attest, most obviously, the activity, the power, and resources of the nation. The length of turnpike roads is, in Great Britain, about 25,000 miles, and in Ireland 14,000 miles. The total length of canals is nearly 3,000 miles, the income of which amounts to about £15,000,000 per annum; which sum, after deducting the expenses of repairs, etc., pays an interest on investments of between 5 and 6 per cent.

The net of railways which now band together the various parts of Great Britain and Ireland, extends to an enormous length. In 1845, there was open to traffic 2,118 miles, and in the same year 300 miles more were completed. In 1846, there were 593 miles, and in 1847, 839 miles opened, making an aggregate of 3,850 miles in the whole kingdom; the capital invested being £109,528,800. In 1847, the construction of 1,408 miles additional was authorized, and during the subsequent four sessions of Parliament, an aggregate of 9,732 miles. On 1st July, 1848, 4,357½ miles were completed. On the 30th of June, 1850, there were 6,308 miles of railroads open for traffic in the United Kingdom, having 2,030 stations, and employing 60,325 persons, giving 1 station and 28 officials and servants to every three miles. There were, at the same time, 864 miles in progress of construction, on which 58,884 persons were employed. During the year, 625 miles were opened, and the total length completed at the beginning of 1851, was 6,621 miles; of which 5,132 were in England and Wales, 951 were in Scotland, and 538 in Ireland.

The average cost, per mile, of all the railroads constructed in Great Britain, is about \$175,000.

The Railroads insure passengers against accidents, both on periodical and single journey tickets. Nearly all the Companies now afford facilities for carrying out the principle.

The increase in the lines of railroad, during 1851, was not so great as in any one of the preceding years since 1844. The maximum increase was in 1848, when 1182 miles were added to the pre-existing lines. Since 1848, the increase has been diminishing.

Only 200 were added in 1851. The extent of railroad communication, open for traffic in Great Britain and Ireland, at the close of 1851, was 6,890 miles, as follows:—

	MILES.
Railroads in England and Wales.....	5,806
Railroads in Scotland	960
Railroads in Ireland.....	624
	6,890

It appears that the number of passengers travelling on railroads in England and Wales, which, in 1850, amounted to 58,514,435, reached 70,471,179 in 1851, showing an increase of 20 per cent.; while the receipts from those passengers rose from £5,888,603 to £6,952,612, being an increase of 18 per cent. The mean length of railroad upon which this traffic was conducted had increased, in the same period, only 6.6 per cent. This increase is, in a great measure, to be attributed to the vast facilities for travelling afforded to the public by means of excursion-trains, which in 1850 had received a great impulse, but was developed in an extraordinary degree in the year 1851, during the exhibition. The mean length of railroad open for traffic in Scotland, during the year, has increased 6.2 per cent., while the number of passengers has only increased from 8,844,191 to 9,236,313, or 4.9 per cent., and the receipts from them from £600,082 to £622,549, or 3.7 per cent. The mean length of railroad, open for traffic in Ireland during the year, has increased 12½ per cent., while the number of passengers conveyed has only increased from 5,465,796 to 5,633,603 or 2.5 pr. ct.; the receipts from them having risen from £339,076 to £365,603, or 7.8 per cent. In England and Wales, the receipts for goods have risen from £5,480,771 to £6,044,183 or 10.3 per cent.; in Scotland, from £721,176 to £814,053, or 12.8 per cent.; in Ireland, from £174,959 to £198,459, or 13.4 per cent. The general results of traffic, over all the United Kingdom, show that the aggregate number of passengers, conveyed in 1850, amounted to 72,854,422; in 1851, to 85,391,095, being an increase of 12,536,673, or 17.2 per cent. The gross receipts from passengers, in 1850, amounted to £6,827,761; in 1851, to £7,940,764, showing an increase of £1,114,003, or 16.3 per cent. The gross sum received for transportation of goods amounted, in 1850, to £6,376,907, and in 1851 to £7,056,695, showing an increase of £679,788, or 10.6 per cent. The gross revenue of all the railroads, arising from traffic of all descriptions, which in 1850 amounted to £13,204,668, amounted, in 1851, to £14,997,459, or very nearly £15,000,000, showing an increase of £1,792,791, or 13.5 per cent.

The number of persons employed, on the 30th of June, 1851, was 106,501. At the end of 1850, railroad companies had raised, by shares and loans, a sum of £240,270,746 sterling.

Telegraphs.—There were, in October, 1852, upwards of 300 railroad stations provided with telegraphic apparatus. The length of the telegraph, to connect these stations, was 3,300 miles, to which additions were every day made. Most of the lines belong to the Electric Telegraph Company; but a new and novel company, called the British Electric Telegraph Company, has been lately started.

In September, 1851, a submarine Telegraph was laid down from the South Foreland in England to the French coast, near Calais. On the English side it is connected with the telegraph of the South-Eastern Railroad, at Dover; and, on the French side, at Calais, with the North of France Railroad telegraph, thus opening a direct telegraphic communication between London and Paris, Brussels, Berlin, Hamburg, Dresden, Munich, Vienna, Breda, Venice, and Milan. The submarine telegraph is inclosed in a cable prepared for the purpose. It consists of four copper wires, each intended to act separately from the others in transmitting signals. These wires are separately enveloped in a gutta percha coating, and a similar coating encircles the whole. This case is next bound round closely with yarn steeped in a melted mixture of tar and tallow, exterior to which is a tight spiral sheathing composed of ten galvanized iron wires, each rather more than a quarter of an inch thick. The whole weighs about 180 tons, and is 24 miles long. In May, 1852, a similar cable, but of smaller size, weighing about a ton a mile, was laid down across the Irish Sea, from Holyhead to Howth near Dublin, a distance of about

60 miles. The success of these Companies has led to the project for several additional submarine lines to connect Great Britain with Ireland, and England with the continent.

Population. — By the census of 1851, it appears that the population of England, Ireland, Scotland, Wales and the islands, including persons in the army, navy and the merchant-service, amounted to 27,619,866, of whom 13,537,052 were males, and 14,082,814 were females.

This population is distributed as follows, namely: —

	<i>Houses.</i>	<i>Males.</i>	<i>Females.</i>	<i>Total.</i>
England and Wales, ...	3,380,961	8,762,588	9,160,180	17,922,768
Scotland, ...	866,650	1,863,622	1,507,162	2,870,784
Ireland, ...	1,047,785	8,176,727	8,839,067	6,515,794
Islands in the British seas, ...	21,826	65,511	76,405	142,916
Part of the Army and Navy out of the Kingdom, . . . . .	.....	167,604	.....	167,604
	4,717,172	13,537,052	14,082,814	27,619,866

There exists no official record of the population of England previous to the commencement of the present century. The first enumeration of the population of Ireland was made in 1813; but so imperfectly was the work accomplished, that English statist place no reliance on the correctness of the returns, and make no use of them as the basis of calculation, so that the only tables upon which we can base statements with reference to the progress of Ireland, from time to time, must be made with reference to the termination of each ten years, ending in 1831, 1841, and 1851. The first census of Great Britain was taken in 1801, at which date the population amounted to 10,567,893.

By the census of 1841, the population of Great Britain and the islands of Jersey, Guernsey, and Man, amounted to 18,658,372. During each ten years from 1801 to 1851 the actual increase was as follows:— viz. 1,479,562; 2,132,896; 2,184,542; 2,260,749; 2,227,438, being at the rate of 14, 18, 15, 14 and 12 per cent. respectively. The actual increase of the population in fifty years has been 10,317,917; the rate per cent. in fifty years, 98; the annual rate per cent. being 1.37.

With respect to Ireland and the returns of 1821, the number of inhabitants at that period was, 6,801,827. In 1831, 7,767,401—increase 965,574; rate per cent. 14, 19. In 1841, 8,175,124—increase 407,723; rate per cent. 5, 25. In 1851, 6,515,794; decrease 1,659,330; rate per cent. 20. By this statement we perceive that the population of Ireland increased from 1821 to 1841 at the average rate of about one per cent. per annum, while a decrease of 1,659,330, from 1841 to 1851, indicates a most appalling diminution of population amounting to two per cent. per annum, or 20 per cent. for the entire ten years, a reduction amounting to the total emigration, from the whole United Kingdom, from 1839 to 1850.

The contemplation of such a state of affairs is the more melancholy, when we consider that the great diminution of population in place of being equalized through the period of ten years must have occurred mainly within one or two years; a reduction of population sinking the number of people to a lower point than it was in 1821, when the first census of Ireland was taken; and it would appear in still stronger light if we were to calculate the natural progress the population would have made up to 1846, the year of famine, and estimate what should be the present population if no unnatural cause had operated to reduce it.

The decrease extended to no less than 31 counties and cities, and varied from 9 to 31 per cent.; while the only increase which occurred was confined to 9 towns and cities, to which many probably fled to find relief.

These startling and appalling facts proclaim the reality of the sufferings experienced from the famine in Ireland; and it is some consolation to feel that our distance did not preclude those efforts in her behalf by our own citizens and government, without which the desolation would have been even more strongly marked.

During ten years, the population of the entire kingdom of Great Britain and Ireland increased from 26,838,496 to 27,452,262, or at the rate of a little more than half a million in ten years. In the last fifty years, England and Wales increased 102 per cent.,

(males 105, females 97 50); Scotland 78 per cent., (males 84, females 73). The population of the United States, during the past fifty years, has increased at the rate of 337 per cent., and in ten years intervening between the two last censuses, increased from seventeen and a fraction millions to over twenty-three millions, or 36 per centum. During the same period (leaving Ireland out of view), the population of Great Britain increased at the rate of 12 per cent., during 10 years, or 1.21 per cent. per annum.

IV. ENGLAND AND WALES.

Extent.—England occupies the southern portion of the island of Great Britain, and forms geographically, as well as socially and politically, the principal division of the United Kingdom. On the north, the only direction in which it is not surrounded by the sea, it is divided from Scotland by a series of rivers and a chain of mountains. The greatest length, from Lizard's Point in Cornwall to Berwick-upon-Tweed, is about 400 miles; and the greatest breadth, from St. David's Head, Pembrokehire, to the east coast of Essex, is 300 miles. The area has been variously computed at 50,387 and 57,960 square miles, of which only one-fourth part is uncultivated.

The *principality* of Wales (area, 7,263 square miles; population, about 1,000,000) comprises that part of the English west coast situated between Bristol and Liverpool. It is inhabited by descendants of the ancient Britons, and continued to be an independent kingdom for several centuries, until, in 1282, it was subdued by the English king Edward I. Since the year 1536, it has permanently been united with England. The eldest son of the sovereign of England, is styled Prince of Wales. Most of the people talk the Welsh language.

The *isle* of MAN (224 square miles and 52,000 inhabitants), belonging to England, but not to any English county, lies in the Irish Sea, at about equal distance from each of the three united kingdoms. Its natives are called *Manxmen*, and their language is very similar to that of the native Irish. Their ancestors were subdued, in the 10th century, by the Danes, and in the 11th by the Normans (from Normandy). In the 13th century the Scotch, and in the 14th the English conquered the island, with which, in the 15th century, the earls of Derby were invested, and since styled kings. In the 16th century, however, the duke of Athol became possessed of the island; which, in 1765, was purchased by the British government, in order to put an end to the smuggling which was carried on here upon the largest scale. The capital of the island is *Castleton*, on the southern coast, with 3,000 inhabitants. It was formerly called *Sodor*. The residence of the ancient kings of Man was in *Castle Rushen*. The most important town of the isle is *Douglas*, residence of a bishop, with 7,000 inhabitants. Another town is *Ramsay*, with 2,000 inhabitants.

The *NORMAN Islands* (total area, 266 square miles; total population, 90,000,) situated in the English Channel, near the French coast, are the only possession left to the English of what they formerly had wrested from France. They have a mild climate and a fertile soil, and are the following: 1. JERSEY (149 square miles, and 57,000 inhabitants), containing, among others, the towns of *St. Helier*, with 22,000 inhabitants, and *St. Aubin*, with 2,000 inhabitants. 2. GUERNSEY (96 sq. miles and 34,000 inhabitants), containing, among others, *St. Pierre*, with 20,000 inhabitants. 3. ALDERNEY, or *Aurigny* (16 sq. miles and 4,000 inhabitants), containing the borough of the same name, with 1,000 inhabitants. 4. SARK (5 sq. miles and 1,000 inhabitants), is in French called *Cers*, or *Sereg*, and contains the fortified seaport of *Longy*.

Surface and Soil.—England is generally a level or undulating country. In the north and east coast, some mountains traverse the surface in several directions; in the south, there are no considerable elevations, the hills only serve to diversify the country, and give it that picturesque outline for which it is noted. The greatest part of the Scottish border is formed by the *Cheviot Hills*, a chain of considerable elevation, and from which a range, varying from 1,200 to 3,000 feet, diverges southward, through Cumberland, Yorkshire, and Lancashire, to the middle of Derbyshire. This chain forms the watershed of

the north country. Connected with this, but almost separated from it by the valleys of the Eden and the Lune, is a lofty group of mountains, which cover a great portion of Westmoreland and Cumberland, where *Scawfell*, *Helvellyn*, *Skiddaw*, and *Bowfell* rise, respectively, to 3,166, 3,055, 3,022, and 2,911 feet above the level of the ocean. The second great watershed of the country is formed by a range of table-lands, rising sometimes into hills, and extending, in a tortuous line, through the East Riding of Yorkshire, and the counties of Lincoln, Northampton, Oxford, Gloucester, Somerset and Dorset; where it terminates at the islands of Portland and Purbeck. It is chiefly composed of oolitic rocks, rising above a lias formation, and presents generally a bold escarpment to the west, with a regular slope to the east. This range forms the *Cotswold*, *Mendip*, *Quantock* and *Brenon* hills, in the last of which Dunkerry Beacon, one of the highest summits in the west of England, rises to the height of 1660 feet. The Chalk Hills, which traverse the south and east, diverge from Salisbury Plain. One of these extends through Hampshire and Sussex to Beachy Head, forming the "*South Downs*"; a second extends, in nearly the same direction, through Hampshire, Surrey, and Kent, and forms the "*North Downs*;" while the third and most important range pursues a north-easterly direction, and forms the eastern border of the "*Fens*." The south-western counties are occupied with mountains of granitic formation, sometimes called the Devonian range, the principal chain of which extends from the Vale of Exeter to the Land's End. Wales is occupied by a system of high and rugged mountains, which constitute several groups and chains, and intersect the country in various directions, between the Bristol Channel and the Irish Sea. The highest and most broken part of England is found near its western coast, while the principal plains and lowlands slope towards the German Ocean.

Besides the moorlands which cover a large portion of the mountain districts, there are other tracts of that description which deserve notice. The eastern moorlands in the North Riding of Yorkshire, 30 miles in length, and 20 in breadth, consist chiefly of stony hills and peat mosses, with a cold and ungenial climate. There are, however, even in this tract, some fertile and well cultivated dales. The Staffordshire moorlands occupy the northern portion of the county, at an elevation of 500 to 1154 feet, and are of various quality and aspect. *Dartmoor*, in Devonshire, covers a space of from 200,000 to 300,000 acres, at a mean elevation of 1,700 feet. Its surface is extremely rugged, and the soil, covered with fragmentary rock, is thin and poor. This was the site of the famous military prison, in which so many American prisoners were confined. In the highest part of the moor there is a morass of about 80,000 acres. In the western part of Somersetshire is *Exmoor*, a tract of about 20,000 acres, which is mostly waste and irreclaimable, but produces a small hardy breed of horses, and affords pasture to about 20,000 sheep of a peculiar breed, to which it gives its name. Besides these hilly moorlands, there are extensive heaths in England, principally in Surrey, Herts, and Dorset, which consist of exceedingly poor land, and are generally flat and uninteresting.

These ranges of mountains, hills, and moorlands divide the country into a great variety of plains and valleys, which are traversed by rivers and streamlets, few of which are naturally navigable. A few of the more interesting of these districts may be enumerated. The *Vale of York* may justly be regarded as the principal river-vale of the island. It extends about 60 miles in length and 15 in breadth, and contains an area of 1,000 square miles. *Holderness*, lying between the Humber and the sea, is a plain with a low but undulating surface, of about 270,000 acres. The city of Carlisle is placed in the centre of a large plain of 300,000 acres. The *Vale of the Severn*, one of the most fertile districts in England, extends through Gloucestershire and Worcestershire, for 40 miles. The *Vale of Exeter* contains 200 square miles; and the *Vale of Taunton*, about one half the extent, produces the finest crops and fruits, and enjoys a particularly mild climate. Between the North and South Downs is the *Weald* of Kent, Surrey, and Sussex, a level tract of 1,000 square miles. The *Fens* form a level tract of about 400,000 acres of very low, marshy lands, lying around the Wash, principally in Cambridge and Lincoln, but partly also in Northampton, Norfolk, Suffolk, and Huntingdon. *Romney Marsh*, in Kent, is connected with the Welland, Denge, and Guilford Marshes, in Surrey, which together form a tract of 50,000 acres, the greater part of which is rich and productive. The marshes of Somersetshire are likewise of considerable extent and importance. These lie along the Bristol

Channel, and are traversed by the rivers Axe, Brue, and Parret; and, in point of fertility, are not surpassed by any in the kingdom. *Salisbury Plain* and *Marlborough Downs* are also important tracts. But the largest plain in England is that which extends from the Thames north-eastward, through Essex, Suffolk, and Norfolk, comprehending nearly the whole of these counties, with a considerable portion of those bordering upon them to the west.

The great south-east division of England, in which a comparatively level surface prevails, exhibits a soil which is either chiefly chalky, or chiefly clayey, according to the character of the substratum. Interspersed are a few sandy tracts, of which *Bagshot Heath* may be cited as an example. In the mountainous districts, the usual light soil, resulting from the early rocks, prevails, excepting where, in the north, there has been a peaty admixture. Upon the whole, England may be said to possess a large proportion of good and productive soil. Probably not above one-ninth of the entire surface (Wales being included) is unsusceptible of tillage.

Scenery.—The natural scenery of England is generally of a pleasing, rather than of a grand or picturesque character; yet there are some portions of the country which are considered attractive on account of their romantic beauty.

The south-west part of the county of Cumberland and the north-west part of Westmoreland, comprehend a range of lofty mountains: Skiddaw, Saddleback, Helvellyn, and some others of scarcely less note, amidst which lie the lakes for which this district of England has long been celebrated. The largest of these are *Ullswater*, *Thirlmere*, *Derwentwater*, and *Bassenthwaite*.

The combination of alpine wildness and grandeur with the soft scenery which reposes on clothed slope and mirror-like lake at the bottoms of the hills, is what gives the Cumberland scenery its principal charm.

The lake scenery of Cumberland has, by its beauty, attracted a great number of permanent residents, whose villas enter pleasingly into its landscapes.

The termination of the great northern range in the north of Derbyshire presents, in that district, a collection of rugged hills and narrow valleys, amidst which some of the most romantic scenery in England is to be found. A particular portion of it, near the village of Castleton, is termed the Peak Scenery, from a particular eminence or peak which attracts more than usual attention.

The *Peak* is approached through a rude and savage pass, named *Winyats* (gates of the winds), flanked with precipices 1,000 feet high. It is a limestone mountain, and perforated, as mountains of that kind of rock often are, with an immense cave. On the top are perched the remains of a castle, once the residence of a family descended from William Peveril, a natural son of the Conqueror. In the precipice below, above 600 feet from the top, is the entrance of the cave, a flattish Gothic arch, 120 feet wide and 46 in height. Within this arch the cavern recedes about 90 feet. Other passages and expansions succeed, till the cave ceases to be passable at the distance of 2,300 feet from the opening.

The scenery adjacent to the neighboring town of Buxton is also much celebrated. One of the most noted objects is *Elden's Hole*, a perpendicular opening, down which a line has been dropped to the extent of 2,652 feet without finding the bottom. *Poole's Hole* is a cave remarkable for its magnificent stalactites.

THE ISLE OF WIGHT, situated off the coast of Hampshire, and measuring twenty-three miles by about thirteen, is celebrated both for its mild climate and its beautiful scenery. The south shore is the most noted for its romantic objects, the most remarkable of which is at *Undercliff*. Here a great chalk cliff has, at one time, been presented to the sea; but, afterwards undermined by the action of the waves, a large portion of it has fallen forward in vast fragments, leaving a new cliff at the distance of about half a mile from the shore. In the interval between the beach and the cliff, the fragments are scattered in confusion, many of them forming eminences of the most picturesque forms, while the intermediate spaces afford room for cottages and villas, and even, at one place, for a small rising town, nestling amidst the most beautiful shrubbery, natural and artificial. This district, when viewed from the sea, appears a series of gigantic steps, rising from the beach, towards a great perpendicular wall.

Coasts.—The whole coast is indented with arms of the sea, forming bays and estua-

ries of considerable importance. On the eastern coast are the estuaries of the *Tyne* and *Tees*, in Northumberland and Durham; the *Humber*, a large estuary between York and Lincoln; the *Wash*, between Lincoln and Norfolk; *Solebay*, off Southwold, in Suffolk; the estuaries of the *Stour* and the *Thames*; *Yarmouth Roads* and the *Downs*, at the eastern extremity of Kent; on the south coast are the *Solent*, *Southampton-Water* and *Spit-head*, forming together a large navigable strait between Hampshire and the Isle of Wight. *Plymouth Sound*, between Devon and Cornwall, off the entrance to which is Eddystone Lighthouse. On the western coast we find the *Bristol Channel*, a deep gulf between Wales



Eddystone Lighthouse.

on the north and Devon and Somerset on the south, about 25 miles wide at its mouth, and contracted to eight when it is joined by the estuary of the *Severn*; *Milford Haven* and *St. Bride's Bay*, in *Pembroke*; *Cardigan* and *Caernarfon* Bays; *Menai Strait*, between *Caernarfon* and the Isle of Anglesea, which is crossed by a magnificent suspension-bridge, the largest in the kingdom; *Lancaster* and *Morecambe* bays, in the north-western part of Lancashire; the *Soleway Firth*, etc.

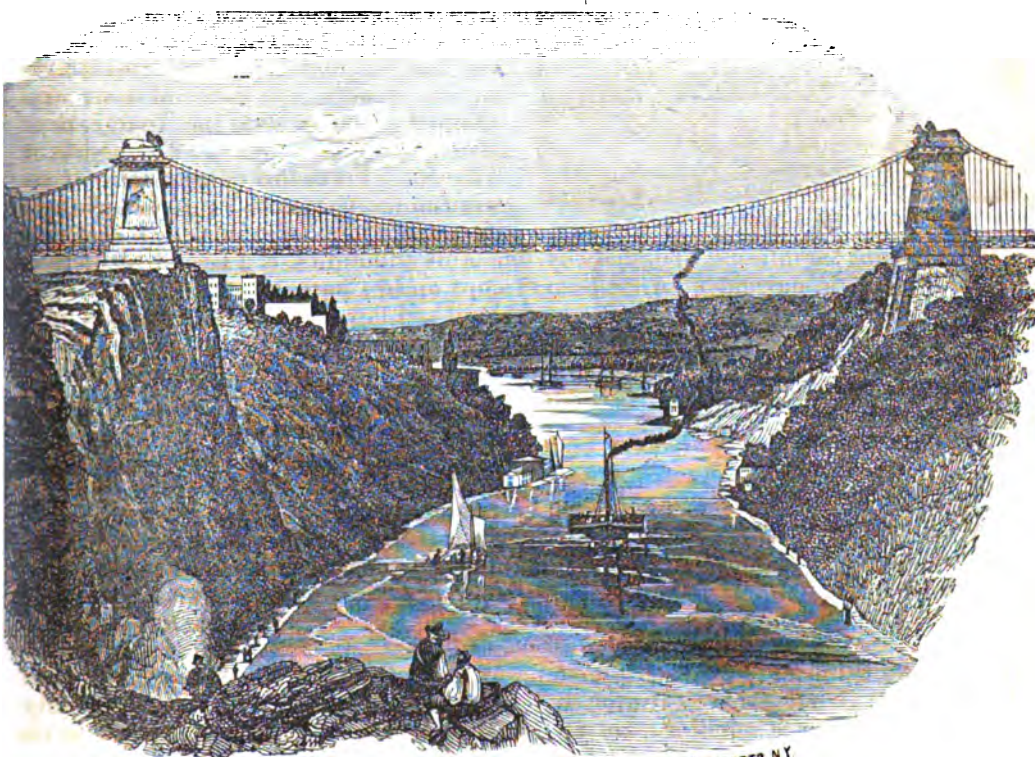
Rivers.—None of the rivers of England are very large, but their value to the commerce of the country is in the highest degree important. The *Thames*, which is formed by the *Lech*, *Colne*, *Thame*, and *Isis*, is perhaps the best navigable stream in the kingdom, and certainly it is the most frequented. It takes its rise in *Cotswold Hills* in Gloucestershire. Below the junction of the streams above named, it takes the name of *Isis*; and after its junction with the *Thame*, near *Dorchester*, it becomes the *Thame-isis* or *Thames*. From this point it flows eastward to the German Ocean, receiving in its course a number of fine streams, which

drain the adjoining counties. The *Medway*, one of its tributaries, is a large river with a wide estuary, and is navigable for the largest ships up to *Chatham*. The *Severn* rises in the east side of *Plinlimmon*, in *Montgomeryshire*, and flows, in a circuitous direction, through *Salop*, *Worcester*, and *Gloucester*, and enters the *Bristol Channel*. It is a larger river than the *Thames*. In the first part of its course it preserves the characteristics of a mountain-stream, being clear, and at times bordered by picturesque scenery; but on leaving Wales and entering the more level country, it becomes a full, slow-flowing river, and admits of easy navigation. Its principal affluents are the *Teme* and the *Upper* and *Lower Avon*. The tide at the mouth of the *Lower Avon* rises 48 feet. The river is crossed at its mouth by a remarkable bridge.

The *Wye*, celebrated for its romantic and beautiful scenery, has its rise in the south side of *Plinlimmon*, near the sources of the *Severn*, flows, in a winding course, through *Radnor* and *Hereford*, and after separating *Gloucestershire* and *Monmouthshire*, unites with the *Severn* below *Chepstow*, where the tide rises to 60 feet. The *Wye* is navigable for barges for upwards of 100 miles. The *Trent* rises in the moorlands of *Stafford*, and after receiving many affluents from *Leicestershire*, *Warwickshire*, *Derbyshire*, etc., falls into the *Humber*. It is navigable to *Burton* in *Derbyshire*, 117 miles, in which it falls only 118 feet. The *Hull* is a small stream in the *East Riding* of *Yorkshire*, having at its mouth the great commercial port of *Kingston-upon-Hull*.



Suspension-Bridge across Menai Strait.



Bridge at the Mouth of the Avon.

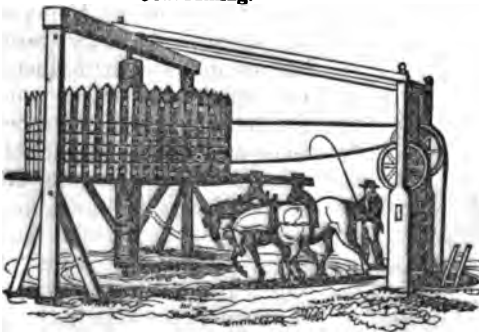
Geology—Coal fields. The surface of England includes specimens of the whole extent of the series of rocks, from the primary, which are found in the ranges of mountains on the west, to the lowest of the tertiary, which compose several districts in the south-east; strata intermediate to these divisions being found in succession, in proceeding from the west and north towards the east and south.

In Cornwall and Devonshire eminences of granite, serpentine, and feldspar-porphry occur, while the slopes resting on them are composed of different kinds of slate. The granite of this district is extensively used for paving in London, though considered less hard and durable than that brought from Scotland. The Welsh mountains are composed chiefly of varieties of slate, with some intermixture of volcanic rocks, as basalt and trap. A rich coal-field, one hundred miles in length and from five to ten in breadth, rests upon their southern verge, extending from Glamorgan into Pembrokeshire, being the largest coal-field in Great Britain. The northern range of mountains is also chiefly composed of slate rocks.

Between these ranges of mountains and a line drawn from Exmouth, through Bath, Gloucester, Leicester, Nottingham, and Tadcaster, to Stockton-upon-Tees, the surface is composed of the lower secondary strata, including rich beds of coal, the existence of which in this situation is mainly what has enabled England to become the first manufacturing country in the world. The eastern parts of the counties of Durham and Northumberland, from the Tees northward to Berwick, form a peculiarly valuable coal-field, of numerous beds, from which the metropolis and other cities in the east of England and elsewhere are supplied with this important mineral.



Coal Mining.



Another coal-field of great value, and that upon which the manufactures of Manchester depend, extends northwards from Macclesfield to Oldham, and thence westward to Prescott, near Liverpool. A coal-field near Wolverhampton, in Staffordshire, is the most valuable in the centre of England; upon it depend the extensive metallic manufactures of Birmingham.

To the east of the line drawn from Exmouth to Bath, and thence by Gloucester, Leicester, and Tadcaster, to Stockton-upon-Tees, we find the upper rocks of the secondary formation, presenting in succession red sandstone and red marl, lias limestone and clay, oolitic limestone, green sand with clay, and finally chalk. Connected with the red marl, great strata of rock-salt are found; these are extensively dug in Cheshire and Worcestershire for domestic use. Lias, which extends from Lyme in Dorsetshire to Whitby in Yorkshire, is remarkable for the remains which it presents of the large Saurian reptiles. Beds of oolite limestone, so called from the small egg-like globules contained in it, cover the southern part of Gloucestershire, and a great part of Oxfordshire, Northamptonshire, Rutlandshire, and the eastern side of Lincolnshire. The Portland-stone, so extensively used for building, and which is quarried in the island of Portland, belongs to this class of rocks. The chalk exists everywhere to the south-east of a line commencing near Dorchester on the south coast, and passing through Wilts, Berks, Norfolk, and so on, to Flamborough Head, excepting in Sussex and Kent, where it has been carried off by denudation, exposing a peculiar formation called the *wealden*, and in the bed of the Thames near London,

and one or two other places, where tertiary beds of clay occur.

Minerals.—Next in importance to coal, as a mineral product, is iron, which is exten-

sively diffused throughout England, though chiefly wrought in the neighborhood of coal, on account of that fuel being required for smelting it. This valuable metal is produced in South Wales to a vast amount. The chief other districts where it is wrought are Staffordshire, Worcestershire, and Yorkshire. In an account of the mineral productions of England, it would be improper to overlook its clay, so extensively used in the manufacture of pottery, (chiefly in Staffordshire), and in making bricks and tiles for building.

Tin-ore, containing about three parts metal out of four, is found in thick veins or vertical beds in the granite of Cornwall, where it has been wrought since before the conquest of the country by the Romans. Copper-ore is also found extensively in that district, generally in continuation of veins which, in the upper parts, have been composed of tin-ore; and in several of the same veins lead, zinc, and antimony are found.

Climate.—The climate of England is remarkable for its exemption from extremes of heat and cold. It displays an uncommon amount of variation within a narrow range. The average temperature in winter is about 42 deg. of Fahrenheit; in summer, the day-temperature is generally about 62 deg. It is only on rare occasions that the thermometer reaches 80 deg., or sinks below 20 deg. The neighborhood of the sea, which partly accounts for this moderation, is also the cause why the climate of England is more humid than is usual in continental countries of similar latitude. Being inclined to cold and damp, it is more favorable to the growth than to the ripening of vegetable productions. It is certainly not unfavorable to either the physical or moral condition of the people. Devonshire and some adjacent districts on the southern coast, enjoy a temperature which in winter is, at an average, two, three, four, and even in some instances five degrees above the rest; and these districts are therefore recommended for the residence of persons afflicted by pulmonary disease.

Vegetable Products.—The most conspicuous feature in the botany of England is the fresh and luxuriant herbage, resulting from the humidity of the climate, and which, though apt to be overlooked by the natives from familiarity, never fails to strike the minds of foreigners with surprise.

Much of the surface was formerly under wood; but this has, for ages, been chiefly confined to particular forests, to the neighborhood of great mansions, and the enclosures of fields. Several large royal forests still exist in England, the most considerable being *New Forest* in Hampshire (66,942 acres) and *Dean Forest* in Gloucestershire (23,015 acres). That of *Windsor*, though famed from its situation and the poetry of Pope, is much smaller, being only 4,402 acres. These were anciently the scenes of courtly sport,

but are now in part reduced to cultivation, or reserved for the production of timber to be used for the public service. The *parks* around the seats of the nobility and gentry are a peculiar and most inviting feature of the English landscape. Tame deer are kept in them. A mixture of green open glades with masses of old well-grown timber—they are scenes of great sylvan beauty; while the existence of so much pleasure-reserved ground in a country where nearly every acre would be profitable under tillage, conveys a strong impression of the opulence of England. The principal



Tame Deer.

trees are the oak, elm, beech, ash, chestnut, sycamore, poplar, and willow. The vine was at one time extensively cultivated in southern England, but is now seen only in a few detached places.

The leading grain in England is wheat; barley, oats and rye, being in a great measure local to the less favored districts. The turnip and potato are almost everywhere cultivated; and peas, beans, and clover are extensively diffused. Hops are produced in the counties of Surrey, Worcester, and Hereford. Hemp, flax, and some other useful productions of the soil, are less conspicuous. The principal fruit-trees are the apple, pear, cherry, and plum; but none of the fruits reach the perfection of those of the United States. The English garden produces a great variety of pot-herbs, most of which have been introduced from the continent within the last three centuries.

Animals.—Of the useful animals, England possesses a considerable variety. Her draught-horses are remarkable for their bulk, generally fine condition, and great strength. The race and riding-horse have been improved by the best blood of Arabia and Barbary. There are excellent breeds of both sheep and cattle; and the pig is also an animal in prime condition, and extensively reared. Some of the ancient wild animals, as the wolf, boar, and beaver, are now extinct; and others, as the stag and wild-ox, are very rare. The hare, partridge, and pheasant, are the chief game-animals, grouse being only found, and that in small amount, in some of the northern wolds. Most of the smaller quadrupeds, birds, insects, etc., common in the same latitude, are found in England. The night-ingale is said to be not heard farther north than Yorkshire. The rivers present trout, perch, etc., and the adjacent seas abound in herring, mackerel, sole, pilchard, and other edible fishes.

Agriculture.—Agriculture is, in England, in a progressive state, but is yet not nearly so far advanced as in the better parts of Scotland.

The chief defects of the agricultural system of England are in the modes of tillage. Cumbersome machinery is employed to do what might be better done by a lighter and cheaper kind; thus five horses, and even more, are sometimes seen at one plough, while the heaviest lands in Scotland require only two. The virtue of draining is scarcely dreamt of in many districts of England, while in Scotland it is, in some places, doubling the produce, besides improving the salubrity of the climate. English farmers are too little educated to be ready to adopt improved modes of agriculture; and, amongst the class of landlords, these have hitherto been too much overlooked. But this state of things is not likely to last much longer.

Mr. McCulloch calculates that twelve millions of acres are cultivated in England, as follows:—

	ACRES.
Wheat	3,800,000
Barley and Rye	900,000
Oats and Beans	3,000,000
Clover	1,300,000
Roots (turnips, potatoes, etc.)	1,300,000
Hops and garden products	150,000
Fallow	1,650,000
	12,000,000

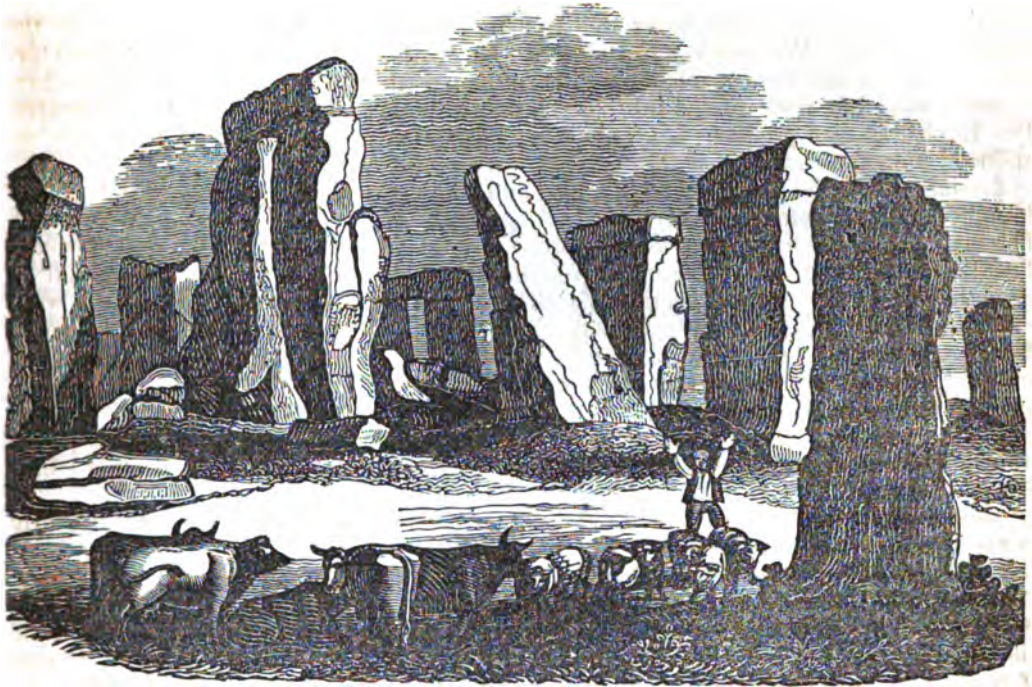
The value of the crops is estimated by the same writer at \$360,000,000. He also calculates 17,000,000 acres of pasture-land, as producing \$300,000,000.

Antiquities.—Perhaps the earliest objects of antiquity in England are the BARROWS or TUMULI, with which the Britons, like so many other uncivilized nations, were accustomed to cover the remains of the dead. Several specimens of these still exist.

DRUIDICAL REMAINS rank, perhaps, next in point of antiquity. The cromlech consists of a large slab of stone, placed flat-wise, or in a sloping position, upon two upright ones. It seems to have formed an altar for human sacrifices. Druidical Circles are more complicated. They usually consist of circles of huge stones, placed on end, with, in some instances, connected lines or rows of similar stones, the whole forming objects at once rude and imposing. It is believed that they were the temples of the Druids. The most re-

markable Druidical Circle is that of *Abury*, six miles from Marlborough, in Wiltshire : there is an outer circle 1,400 feet in diameter, composed of stones generally about 16 feet in height, with a distance of 27 feet between every two.

Another Druidical Circle of great note is that of *Stonehenge*, upon Salisbury Plain, a



Stonehenge.

district also presenting many tumuli and other vestiges of the Britons. The Stonehenge temple, in its perfection, consisted of 140 stones, arranged in two concentric circles, the outermost 108 feet in diameter, with similar stones laid flat-wise along the tops of the upright stones. The blocks which remain are from eighteen to twenty feet high, and about seven feet broad. Within the inner circle are two oval ranges, supposed to have formed the admytum or cell, and which consists of stones about thirty feet in height. The remains of this stupendous temple, ruined and shattered as they are, still produce a sensation of awe upon the mind of the beholder.

ROMAN REMAINS are now rare and nearly obliterated. The roads formed by this people have, in some instances, been changed into the present comparatively broad and well-formed ways; in other cases, slight traces of their original pavement, which generally consisted of large stones forming a causeway, are to be found. Between Newcastle and Carlisle are the remains of the two walls built respectively by the emperors Adrian and Severus, in 120 and 210, to keep out the northern barbarians; the first being a high mound of earth, and the second a rampart of stone, 68½ miles long, running parallel to the first, on the outside. Remains of Roman camps, bridges, villas, baths, etc., also exist in various parts of England. All the towns, the names of which terminate in *chester* or *caster*, are considered as having been originally Roman stations.

Churches.—Several of the small CHURCHES built after the introduction of Christianity still exist, and continue to be used as parish churches. The larger churches connected with monastic establishments, and the CATHEDRALS, which were the seats of bishops, took their rise at a later period, chiefly during the twelfth and thirteenth centuries. This was a time when an enthusiasm existed for founding and endowing monasteries and churches. *Westminster Abbey*, *York Minster*, and the cathedrals of *Winchester*, *Lincoln*, *Gloucester*, *Canterbury*, *Litchfield* and *Salisbury*, may be instanced as particularly august specimens. There are also many ruins of the great abbeys of the middle ages:

those of *Tintern*, near Monmouth; *Glastonbury*, near Wells; and *Bury St. Edmund*, are of famed beauty.



The Tower of London.

Castles. — Of the huge CASTLES built by the Norman nobility and by the sovereigns during the first few centuries after the conquest, many specimens still exist, but few which are not in ruins. The *Tower of London*, built by the Conqueror himself, is an entire and most superb example of this class of structures. Conway and Caernarvon Castles, which with many others, were raised to overawe the then independent principality of Wales, are also noble specimens. Others may be found in the north, as Lancaster, Carlisle, Newcastle, and Rugby Castles. They

usually consist of a great square tower, with ranges of lesser towers, and the whole surrounded by thick and lofty walls, beneath which there was generally a moat or wet ditch.

Mansions. — A certain class of English mansions may be described as engrafted upon the fortresses of the Middle Ages, or upon the priories and abbeys disused at the Reformation. *Warwick Castle*, the seat of the Earl of Warwick, situated upon a rock forty feet above the river Avon, and *Alnwick Castle*, in Northumberland, the seat of the Duke of Northumberland, are splendid examples of the first class of edifices. The area of the latter building is divided into three courts, entered through gateways formed in lofty towers. The keep, or citadel, is of vast magnitude, and acquires some peculiar points of architectural beauty from 'fair semi-circular towers,' which protect and adorn it on every side. *Newstead Abbey*, in Nottinghamshire, the seat of the late Lord Byron and of his ancestors, may be instanced as a beautiful and impressive example of the domestic mansion founded upon the remains of a monastic building.

There is a class of old mansions which appear to be peculiar to England, and are usually called *Halls*. They date in many instances from the sixteenth century, the days of the first Tudors. *Haddon Hall*, near Derby, belonging to the Duke of Rutland, is an unusually handsome specimen of the class. They generally present a front, of irregular form, advancing into prominent bows with many windows, and constructed of brick upon a fantastically shaped framework of timber, the exterior of which is left exposed and painted. A variety of angular projections break the line of the roof, and give occasion to much carved wood-work. In the interior there is always a goodly hall of oak, with a diced floor, a huge set of oaken tables, and a spacious fire-place.

Another large class of English mansions are of a style which prevailed in the seventeenth century, and which comprehends many substantial as well as decorative features. Elegant fronts of polished stone, with traces of turreting, ornamented square windows, and tall angular chimney-stalks, strike an untechnical spectator as the principal features of this style, usually called Elizabethan. *Holland House*, Kensington, and *Theobalds*, the seat of the celebrated Secretary Cecil, present apt examples.

The houses built in the last century were chiefly in the Grecian style, more or less pure. For instance, *Kiddlestone House*, the residence of Lord Scarsdale, near Derby, the front of which is a line of 360 feet, comprehending a central and two lateral masses connected by low corridors, and universally admired for its classic purity and grace. *Chatsworth*, the seat of the Duke of Devonshire, also near Derby, is another magnificent mansion of this class.

Within the last fifty years, houses have been built in various styles, imitative of modes long ago fashionable. It is common now-a-days to build houses, from the foundation, in

the manner of those Gothic priories and abbeys which were originally designed for purposes so different.

Eaton Hall, the seat of the Marquis of Westminster, situated near Chester, may be considered as a prime example of the modern Gothic. It comprises, besides other apartments, an entrance hall, paved with variegated marbles, a music gallery, adorned with two fine pictures by West, a saloon, decorated with some beautiful specimens of stained glass, and a library. This magnificent mansion is much visited by strangers on account of its architectural beauty, its splendid furniture, and the vast number of interesting objects contained in it. It cost the enormous sum of £1,000,000 sterling.

Inhabitants, Language, etc. — At the period of the Roman invasion, England was possessed by various aboriginal tribes, supposed by some to have been Celts, and by others a mixture of the Celtic and Gothic races. Their descendants still form the chief bulk of the people of Wales and Cornwall, but their language is extinct, except among the Welch. The south-east at that period was occupied by the Belgæ, a branch of the Teutonic family, from Gaul, which had dispossessed the natives and driven them into the interior. After the downfall of the Roman power, the south-east and midland districts were subdued by the Jutes and Saxons; and Norfolk and Suffolk by the Angles, while the north was overrun, sometimes possessed, and largely colonized by the Danes — all kindred families of the Gothic or Teutonic race. The Normans subdued England in the eleventh century, and subsequently commingling with the Jutes, Danes and Angles, form the present intermixture, the modern English and the English language. For a long period, however, the people of each county had a dialect peculiar to themselves; but by the diffusion of education, intercommunion and other causes, the mother tongue has become more uniform, and one language, substantially the London dialect, is now, with slight deflections only, spoken in every part; and, diffused by Colonists from England, has become naturalized in various parts of Asia, Africa, and Australia. In fact, the English bids fair to become the prevailing language of the globe. The groundwork of the English language is Saxon, with a large addition from the Greek, Latin and French.

Population. — The amount of the population of England and Wales prior to the year 1801 cannot be ascertained with any degree of certainty. McCulloch conjectures that at the era of the conquest it amounted to about 2,150,000: Mr. Chalmers estimates its amount in 1377 at 2,350,000, and the celebrated political arithmetician, Gregory King, in 1696, states it at 5,500,000. Since 1801 a decennial census has been taken. The following table exhibits the gradual progress of the population from 1801 to 1851:—

	<i>England.</i>	<i>Wales.</i>	<i>Army and Navy.</i>	<i>Total.</i>
1801.....	8,331,434.....	541,546.....	470,598.....	9,343,578
1811.....	9,538,827.....	611,788.....	640,500.....	10,791,115
1821.....	11,261,437.....	717,438.....	319,800.....	12,298,175
1831.....	13,091,005.....	806,182.....	277,017.....	14,174,204
1841.....	15,173,164.....	911,241.....	.....	16,084,405
1851.....	.....	.....	.....	17,922,768

About one third the people reside in towns having a population of 10,000 and upwards; and as the increase of this class is rapidly progressing, and in a greater ratio than the population of the rural districts, it indicates a corresponding preponderance in manufacturing industry.

Cities. — LONDON, the British metropolis, is a world within itself. It is situated in the counties of Middlesex, Kent, and Surrey, on the banks of the Thames, sixty miles from the sea. The larger portion of the city is built on the north side of the river, and rises in a gentle slope from the water's edge. Its outline is exceedingly irregular, and it is difficult to determine its exact extent. It is usually said to include all the buildings in a radius of four miles around St. Paul's Cathedral. The area cannot be less than 20 to 25 square miles. It must be borne in mind, however, that London is not one city only, but consists of eight distinct municipalities, including two cities, and six boroughs, with extensive suburban villages and hamlets. The cities are *London* proper and *Westminster*, and the boroughs *Marylebone*, *Finsbury*, *Tower Hamlets*, *Southwark*, *Lambeth*

and *Greenwich*; with which are included to make up the borough, *Deptford* and *Woolwich*; the five first being in Middlesex, the two next in Surrey, on the south side of the Thames, and the last, also on the south side of the Thames, in Kent. The streets are for the most part wide, but there are also many which scarcely admit of the passage of carriages. The finest streets are those in Westminster and Marylebone, where the aristocracy reside. This portion of the city is known as the "West End," and contains the Royal Palaces, the seats of the executive and legislative governments, the parks, and in general the most splendid buildings. The city proper is known as the "East End," which comprehends also the most populous portions of Tower Hamlets. The foreign merchants are chiefly quartered in this portion of the city, and considerable manufactures are carried on, especially in silk-weaving and sugar-refining. It also contains the extensive docks and warehouses at Blackwall, belonging to the East India Company; those connected with the West India trade at Poplar; the London Docks, at *Wapping*, and St. Catharine's Docks, near the Tower. *Southwark* and *Lambeth* contain some extensive iron foundries, breweries, and many other important manufacturing establishments, especially those of patent shot and plate-glass. The latest additions to this great metropolis, have been made on the north and north-west, in *St. Pancras*, *Finsbury*, etc. The houses built here are of brick, chiefly supplied on the spot, and are generally faced with stucco. Few are of more than three stories, and whole streets are built of uniform design.

Of public buildings, the *Cathedral Church of St. Paul*, in the city, is in the Roman style of architecture, built in the form of a cross, with a large dome in the centre. It is 500 feet in length, 180 in breadth, and the height to the top of the cross which surmounts the dome, is 350 feet. The whole building is of Portland stone, now very much discolored with smoke, and long exposure to the weather. The interior is very plain; but of late years the dull monotony of its appearance has been to a considerable extent relieved by a number of monuments, erected to the memory of England's worthies.

The *Church of St. Peter*, commonly called "Westminster Abbey," though not so prominent an object as St. Paul's, is of not less distinguished fame. It is likewise in the form of a cross, but without a dome or central tower; and the tameness of its exterior aspect is but little relieved by two modern towers at its west end. The whole building is in the Norman and Gothic styles, and some parts of it are of great antiquity. The dimensions of the abbey from east to west, including Henry Seventh's Chapel, are 375 feet; from north to south 200 feet; height of the nave 101 feet; from the choir to the lantern 141 feet: of the western towers 225 feet. The interior is crowded with monuments of the illustrious dead; and it is here that the ceremony of the coronation of the kings and queens of England is performed. The other churches of the metropolis are generally small in proportions, and few can boast of a high order of architecture. One hundred new churches have been erected within a few years by the Church Extension Society.

Adjoining the Abbey is *Westminster Hall*, the only remaining part of the palace commenced by King William Rufus. It measures 276 feet in length by 100 in breadth, is covered with an elegant roof formed of oak, and now forms the entrance hall of the magnificent building erected for the accommodation of the Imperial Parliament, a building second to none in Europe. This new *Parliament House* covers an area of near eight acres. It has four fronts (that on the river being 400 feet long), and three principal towers from 300 to 340 feet high. The southern portion of the building is appropriated to the House of Peers, and the library, committee-rooms, refreshment rooms, and other offices belonging to it. The Queen's entrance, used on the occasions when her Majesty goes in person to open and prorogue Parliament, is under the Victoria Tower; whence, ascending a few steps to the first or principal floor, she passes through the Robing-room and the Victoria-gallery to the throne end of the House of Peers.

In like manner, the northern portion of the building is devoted to the House of Commons, with its various committee-rooms and offices; the residences of the Speaker, the Serjeant-at-Arms, etc., being at the extreme end near the Clock Tower. In the midst, between the two Houses, and communicating with both, is a grand central hall, which

is approached from the western front by another passage, called St. Stephen's Hall. The House of Lords is 90 feet long by 45 wide and 45 high. The House of Commons is 62 feet long, and 45 feet in width and height. St. Stephen's Hall is 95 feet long, 30 feet wide, and 50 feet high. The House of Lords is furnished and decorated in a most gorgeous style; richly gilt mouldings, emblazonings of arms, paintings, stained glass windows, and velvet-pile carpeting contributing to complete one of the most imposing pictures ever witnessed of the kind. The House of Commons will be more plainly furnished, but still will not be deficient in any of the essentials of comfort and grandeur. St. Stephen's Hall, besides being decorated with stained glass windows and other ornamental features, will be further enriched with a variety of sculptures, busts of eminent statesmen, etc. The general style of the whole building is a richly decorated Gothic. There is a Strangers' Gallery in either House, to which persons having orders from a member are admitted to hear the debates. During the hours the House of Peers sits judicially, being the highest Court of appeal in the realm, the public have free access, as to other Courts. At other times permission to view the House, when not sitting, may be obtained by application at the Lord Chamberlain's office. The Lords assemble for legislative business at five o'clock; the Commons generally at four, sometimes at twelve.

In the same neighborhood is *Whitehall*, a small portion of a palace commenced by King James I, now occupied as a military chapel; the royal palace of Pimlico or *Buckingham House*, an old building new faced and remodelled; and *St. James's*, an ancient, irregular, and gloomy structure of brick; also, on the right of Westminster Hall, are the principal *Courts of Law*, with entrances to them severally. These buildings, the chief front of which is facing St. Margaret's Church, are comparatively modern, having been remodelled in 1820-24.

The principal offices in which the financial and other executive business of the country is conducted, are situated in Whitehall and Downing Street, which runs out of it, skirting the south-east corner of St. James's Park, being within the immediate precincts of the former Royal residence.

The Treasury building, the head controlling department of the executive, at the corner of Downing Street and Whitehall, has a new front of handsome Italian architecture. The offices of the Privy Council, of which the Board of Trade is a special department, are located in distinct portions of this building.

Adjacent to the latter, and nearer Charing-Cross, is the office of the Secretary of State for the *Home Department*. *The Foreign and Colonial Offices*, respectively presided over by principal Secretaries of State, are in Downing Street.

The Horse Guards, in which all that relates to the organization and disposition of the army is conducted under the General commanding in chief, is situated immediately facing the Banqueting-House, Whitehall, its rear looking out upon St. James's Park. Though a striking feature in its way, with a cupola-topped clock-tower, the style of its architecture is neither classical nor elegant.

The Ordnance Department of the army is conducted at the Ordnance Office, Pall-Mall, nearly opposite St. James's Square.

The Admiralty is situated close to the Horse Guards. It is a stately building, flanked by wings, and having a handsome architectural screen in front of the court-yard. The naval department of the Government is conducted by five Lords of the Admiralty, the first or chief of whom is always a member of the Cabinet, but generally not a naval man.

The Board of Control, for superintending the political affairs of the East Indian Government, and having a discretionary authority correlative with, and in some cases beyond that of the East India Company, is also located in this part of the town, though in a secluded spot, namely, in Cannon Street, Westminster, between Parliament Street and the river. It is a neat building of brick and stone. The Chairman of the Board of Control is always a member of the Cabinet.

Somerset House is situated in the Strand, extending to the river on the eastern side of Waterloo Bridge, and has an area of 500 feet by 800 feet. The Strand-front has a noble aspect, the basement consisting of nine arches, upon the key-stones of which are masks, designed to typify the ocean and eight of the principal rivers in England. Above are four statues, emblematic of the four quarters of the globe; and, surmounting all, the



Somerset House.

arms of England. Passing through the gateway, we come to a handsome quadrangle, around which are the entrances to the several offices to which the building is appropriated. The river-front, one of the finest *façades* in Europe, is flanked by a handsome terrace. The principal Government Offices in the building are those connected with the collection of certain branches of Inland revenue, as the Stamps and Taxes, the Excise including the Legacy duty, the Audit Office, etc.; and with the internal government of the country as the Poor-law Commission, the Tithe Commission, the Registrar-General etc. In the Strand portion are apartments appropriated to the Royal Society, the Antiquarian Society, the London University, and the Government School of Design. The east wing, which was added a few years ago, belongs to King's College, the ground having been granted for the purpose. There is a separate entrance to the College, through a gateway facing the church of St. Mary-le-Strand. In the same quarter of the city are the *National Gallery* and the *British Museum*, including, besides a vast collection of curiosities, a library of 500,000 volumes, the largest in the kingdom, and one of the largest in the world; also University College, Drury Lane and Covent Garden Theatres, and the Inns-of-Court establishments, in which those persons intended for the profession of the law are required to eat a certain number of dinners, during terms of three or five years the expense of which, together with a species of fine, amounts to about £130. Having undergone this probationary requisite, the students are considered qualified for admission to the bar, if members of the society will move that they be "called." The ceremony of "call" is invariably followed by a festive banquet, at which the newly-made "learned gentleman entertains his friends.

The Inns-of-Court having power to call to the Bar, are Lincoln's Inn, the Inner Temple, the Middle Temple, and Gray's Inn. *Lincoln's Inn* is situated between Chancery Lane and Lincoln's-Inn Square, and derives its name from the Earl of Lincoln, who erected a mansion on this spot in the reign of Edward I. The buildings form a quadrangle, one side of which is occupied by the chapel and the old hall. *The Temple* is thus called, because it was anciently the dwelling house of the knights-templars.

At the suppression of that order it was purchased by the professors of the Common law, and converted into inns. They are called the Inner and Middle Temple, in relation to Essex House, which was also a part of the house formerly belonging to the knights, and called the Outer Temple, because it was situated outside Temple Bar. The principal entrance to the Temple is the Middle-Temple Gate, which was erected from the design of Inigo Jones. It is adorned with the figure of a lamb, the badge of the society.

The *Inner Temple* is situated to the east of Middle-Temple Gate, and has a cloister, a large garden, and spacious walks. The gardens, which extend along the banks of the Thames, form a delightful promenade, commanding fine views of Waterloo and Blackfriars Bridges and of Somerset House. They are open to the public at six o'clock in the evening, for a few of the summer months, commencing the first week in June. The *Middle Temple*, which joins the Inner Temple on the west, is so called from having been the central portion of the ancient Temple. *Gray's Inn*, situated in Holborn, is so called from having been the residence of the ancient family of Gray of Wilton, who in the reign of Edward III. bequeathed it to several students of the law. The handsome garden is open to respectably dressed people every day. Besides these principal inns of court, there are two Serjeants' Inns, the one in Fleet Street, the other in Chancery Lane.

The *Custom House* has a noble river front, including three porticos of the Ionic order, with a terrace walk before it. It is situated a little above the Tower and immediately adjoining Billingsgate Market, famed for the finest fish and the richest "slang" in the world, and covers an area of 488 feet in length by 100 in depth. The present building was completed in 1817, from the designs of Mr. Laing. The Long Room, where merchants and ship masters from all parts of the world resort daily, to pass their accounts, measures 196 feet by 66 feet, and 50 feet high.

East-India House.—The house in which the East India Company conduct the Home Government of the important Asiatic possessions, is situated in Leadenhall Street, about a quarter of a mile beyond the Royal Exchange. It is a spacious and handsome edifice, with a projecting portico of the Ionic order. Above the pediment are representations of Britannia, and emblems of the Thames and the Ganges.

The metropolis is supplied with water through pipes, by nine private companies, whereof six are on the Middlesex and three on the Surrey side of the river. The earliest in date of foundation is the New River Company, founded by Sir Hugh Middleton, at the beginning of the reign of James I. The quantity of water daily poured into the town by these companies is upwards of 44 millions of gallons.

There are eight cemeteries established and conducted by companies of proprietors, on the outskirts of the town, of which that at Kensal Green is the most important, and was the first established. The others are at Brompton, Highgate, Abney Park near Stoke Newington; the Victoria at Mile End and at the Tower Hamlets, on the north side of the river; and the Norwood Cemetery, and Nunhead Cemetery, on the Surrey side.

The principal markets are: for cattle, Smithfield; for butcher's meat (carcase), Leadenhall Market and Newgate Market; for vegetables, Covent Garden and Hungerford; for fish, Billingsgate and Hungerford; for general provisions, meat, poultry, vegetables, etc., Farringdon Market, Finsbury Market, Newport Market, the Borough Market, Leadenhall Market, and Hungerford Market.

The Clubs of London are a distinguishing feature in the social condition of this great Metropolis, which is without parallel in any other quarter of the globe. They owe their origin to the gregarious propensities of men in large communities, restrained by a certain principle of exclusiveness. Their philosophy is based upon the known power of an aggregation of comparatively small contributions. For six or eight guineas a year, a man, having his time upon his hands, may live during half his life (twelve out of the twenty-four hours) in a splendid mansion, furnished with a library, newspapers, and writing materials, etc., in abundance, and an unexceptionable *cuisine*, at fixed and moderate charges; associating upon equal terms with others much his superiors in rank, posi-

tion, and worldly advantages. We are fain to repeat that this is a consummation resulting from a high degree of practical civilization, which, in the present state of society and politics, could not be successfully accomplished in any other capital in the world. The Clubs are undoubtedly an offshoot of the taverns and coffee-houses of former days, which were long the accustomed resort of men of wit and fashion about town: witness Will's Coffee-house, in Covent-garden; the Grecian, near the Temple; the St. James's Coffee-house; the Turk's Head, Gerrard street, Soho — names immortalized by association with those of Johnson, Garrick, Reynolds, Burke, Goldsmith, and a host of other *beau esprits*, who frequented them. In process of time, as men separated into *cliques* and classes, a desire for selection and control, combined, perhaps, with a spirit of economy, led to the establishment of Clubs upon a sort of joint-stock principle, where all the advantages of a tavern might be combined with the splendor of a private mansion, at a rate of charge avoiding intermediate profit to a proprietor, and above all, with a *veloute* upon the admission of guests. In most of the early Clubs, gambling was carried on to a great extent; but in those of recent formation, regulations are laid down excluding games of chance, and restricting the stakes upon others. Many of the Clubs created within the present generation are appropriated to particular classes, as the "United Service," the "Army and Navy," the "University," and the "Oxford and Cambridge," where certain qualifications are necessary for admissibility; others assume by their names, more than in reality, a peculiar character as to politics or pursuits, as the "Reform," the "Conservative," the "Travellers," the "Athenæum," the "Parthenon," the "Garrick;" but the grand element in the constitution and objects of all is the same — that of association, of newspaper-reading, of agreeably passing away an idle hour, and above all of eating a good dinner and drinking fair wine at a moderate price. Some of the younger Clubs, as the "Parthenon," the "Erectheum," the "Garrick," the "Reform," more liberal than their elder brethren, permit a member to introduce a friend, sometimes two, to the advantages of the social board — a privilege which country cousins doubtless will not allow their Club friends to treat as a dead letter, the more especially as it is an imperative rule, in all cases, that the whole cost of the entertainment must be paid by the member who invites, and not by the guest.

The ordinary charge for dinner off the joint is two shillings, with an extra of sixpence or ninepence for "the table." Cold meat, with table beer and bread *à discretion*, may be had till four o'clock for sixpence — a cheap lunch, convertible, by a slight effort of imagination, into an early dinner. No gratuities are allowed to waiters.

The territory of the Clubs lies between Charing-cross and St. James's street, Pall Mall being the principal scene of recent colonization. A spot more convenient for easy access at once to the world of business on the one hand and of fashion and pleasure on the other, could not be selected. There are some stragglers in other parts, both east and west, which will appear by the list which follows.

The newer Clubs have all been outvieing one another in the size and stateliness of their buildings, incurring, in many instances, a heavy amount of sunk capital upon their respective concerns. The old quiet houses of Pall-Mall are rapidly disappearing, to make room for these communist palaces. The Athenæum and United Service Clubs, which stand at the two corners facing Waterloo-place, were looked upon as architectural marvels not to be surpassed. Shortly afterwards, however, came the Reform, the Conservative, the Oxford and Cambridge, and, lastly, the Army and Navy, which have thrown their earlier competitors into the shade.

The following is a list of the Clubs in London: —

White's, 37 and 38, St. James's street, had its origin and name from a coffee-house of which White was the Proprietor, standing near the bottom of St. James's street, and established about 150 years ago. It was formed into a Club somewhere between 1730 and 1740, the subscription, however, being paid to the proprietor. The present house was built by James Wyatt.

Boodle's, 28, St. James's street. — Another of the old Clubs.

Brooks's, 60, St. James's street. — This has always been a Whig Club.

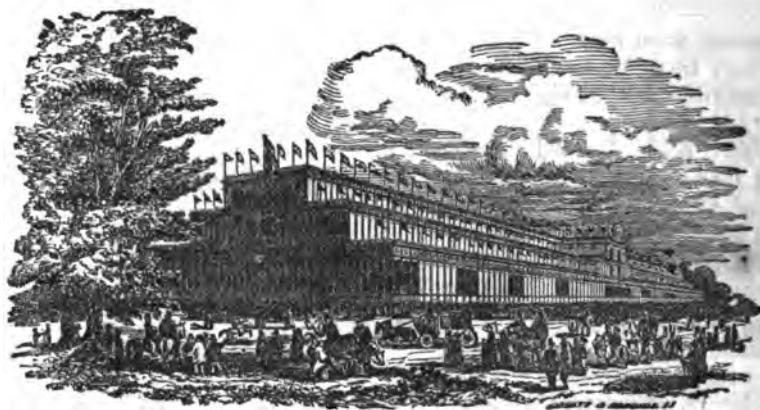
Arthur's, 69, St. James's street. — Founded early in the last century.

- The Alfourd*, 23, Albemarle street. — Established 1808.
- The Wyndham*, 11, St. James's square.
- The Union*, corner of Cockspur street and Trafalgar square. — Built about the year 1822, by Sir R. Smirke.
- The University*, corner of Suffolk street and Pall-Mall East. — Built 1826, by W. Wilkins and J. P. Gandy.
- The United Service*, corner of Pall-Mall, opposite the east side of Waterloo place. Built 1826, by Nash.
- The Junior United Service*, corner of Charles street and Regent street. — Built by Sir R. Smirke, and occupied by the United Service Club, until their removal to their present large house.
- The Athenæum*, corner of Pall-Mall (south side), opposite western side of Waterloo place. — Founded in 1823; formerly occupied the house No. 11, Waterloo place, subsequently used by a Club called successively the "Literary Union" and the "Clarence," now defunct. The present house was built by Decimus Burton, 1829.
- The Travellers'*, 106, south side of Pall-Mall, next the Athenæum. — Founded in 1814, for gentlemen who had resided or travelled abroad, "a distance of at least 500 miles in a direct line," and the accommodation of foreigners of distinction properly recommended. The present house was built by Mr. Barry, in 1833.
- The Reform*, Pall-Mall (south), next the Travellers'. — Founded about the period of the Reform movement, 1830. The present house was built about twelve years ago by Mr. Barry. The only club to which chambers are attached.
- The Carlton*, Pall-Mall (south), next the Reform. — For gentlemen of the Tory or Conservative party. The house was built by Sir R. Smirke; since altered by Sidney Smirke. A new wing is adding, more sumptuous in style, and richly decorated with paintings by Sang.
- The Guards*, Pall-Mall (south), formerly had their club-house in St. James's street, west side, one door from Piccadilly, now occupied by the Sovereign Assurance Office. Removed here four years ago; the house is small, the Club being restricted to officers of the Household Troops.
- The Oxford and Cambridge*, Pall-Mall (south). — Built 1838, by Sidney Smirke.
- The Army and Navy*, Pall-Mall (north), corner of George street; removed from corner of King street, St. James's square. — Present house built by Messrs. Parnell and Smith, decorated by Sang, and opened in 1850.
- Conservative*, St. James's street (west side). — Built on the site of the Thatched House Tavern, 1845, from designs of G. Basevi and S. Smirke. The hall, and other parts of the interior, painted by Mr. Sang.
- Erectheum*, St. James's square, corner of York street. — The house formerly occupied by Mr. Wedgewood, the ware by whose name is so celebrated. Founded about twelve years ago.
- Parthenon*, 16, Regent street. — Established about twenty years ago.
- Oriental*, 18 Hanover square, west side corner of Tenterden street. — For gentlemen who have seen service, or have travelled in the East.
- Coventry*, Piccadilly. — Founded about eight years ago, in the house formerly belonging to the Earl of Coventry.
- Portland*, corner of Stratford place, Oxford street.
- Garrick*, 35, King street, Covent garden. — Instituted 1831, for members of the theatrical profession and lovers of art and literature.
- Gresham*, King William street, London bridge.
- City of London*, 19, Old Broad street, where stood the Old South Sea House.
- Law Club*, attached to the "Law Society," 106 to 109, Chancery lane, which society is composed of attorneys, solicitors, proctors, etc., was founded 1827, and incorporated 1831.
- The Whittington Club*, corner of Arundel street, Strand. — Founded in 1847, for the advantage of the middle classes, as clerks, etc.; and lectures and educational classes being added to the general arrangements of a club.
- To whatever extent London is deficient in national buildings, it is superior to all oth-

ers for its accommodations and means of supplying all the wants and luxuries of life. Its noble squares, its clean and well regulated thoroughfares, the brilliant lights which convert night into day, together with the amazing number of shops and the costly merchandize therein displayed, are objects of interest to every visitor, and especially to foreigners. *Sewers*, which rival at least in point of extent the celebrated constructions of the same nature at Rome, are the means of keeping the streets free from impurities. The *lighting of the metropolis* is effected by several coal gas companies. The length of gas-pipes laid is estimated at 450 miles, and the gas is conveyed through these into 7 or 8,000 streets.

The *bridges* which span the Thames are among the most magnificent in the world, and celebrated for their substantial strength. London Bridge, rebuilt and opened in 1831; Southwark Bridge, completed in 1819, and Blackfriar's Bridge, open since 1769, afford the means of communication between the city and borough of Southwark. Higher up the river, Waterloo Bridge, opened in 1817, Hungerford Suspension Bridge for foot passengers only, Westminster Bridge, built in 1750, and Vauxhall Bridge, in 1816, connect the districts of Westminster and Lambeth. London, Waterloo, Blackfriars, and Westminster bridges are built of stone; those of Hungerford, Southwark, and Vauxhall, of iron; but in these, the metallic arches and supporting spans rest on piers and abutments of masonry. These bridges vary in length from 1,242 (Waterloo) to 708 (Southwark), in breadth of roadway from 53 feet (London) to 36 feet (Vauxhall), and in the span of the principal arches from 240 feet (Southwark), and 152 feet (London) to 76 feet (Blackfriars). In addition to these communications, the Thames Tunnel, a sub-aqueous passage beneath the bed of the Thames, was commenced at Rotherhithe in 1825, and after many interruptions from irruptions of the super-jacent waters, was completed in 1843, at a cost of £614,000. This is one of the most wonderful structures in the world, and, as a commercial avenue between London and Southwark, very advantageous. It consists of a mass of brick work 1200 feet long, 37 wide and 22 high, containing two arched passages within which are distinct roadways for carriages and pedestrians.

The splendid *parks* of London are truly the lungs of the metropolis, and important for health no less than as places of recreation and pleasure. These are St. James's Park, Green Park, Hyde Park, of 400 acres, Regent's Park, of 450 acres, in the West End, and Victoria Park, of about 290 acres, in the eastern suburbs. Regent's Park is surrounded by magnificent buildings, and contains besides a Botanic Garden, the Gardens of the Zoological Society, whose collection of animals is one of the most interesting and attractive objects of public curiosity. Hyde Park is continuous with Kensington Gardens, a large enclosure connected with the royal palace. The Serpentine river, is a large oblong pond, partly in Kensington Gardens and partly in Hyde Park. These parks are highly adorned with ornamental woods, and contain several statues of British



Crystal Palace.

heroes and statesmen. The Crystal Palace erected here for the World's Fair of 1851 has been removed to a station on the south-eastern Railroad, seven miles south of London, where it has been set up as a permanent structure. It is composed entirely of glass and iron. A new park is in the course of formation in Butterson-field.

London contains about one-eighth of the whole population of England and Wales.

No city in the world, leaving out the populous cities of China, exceed this amount; and even Rome in her palmyest days cannot be said to have surpassed the British metropolis in this respect. The supply of provisions is in general abundant, and the prices reasonably cheap. Their cost in New York and London is about equal; but on account of the cheapness of house-rent and fuel, living in London is more economical.

London, including under that name all the metropolitan cities and boroughs, returns twenty members to parliament. It is also the see of a bishop, who ranks next in dignity to the arch-bishops.

In reference to the extent and activity of its commerce, London stands without a rival. Its foreign trade, it may safely be affirmed, exceeds not only that of every other city of the world, but even the entire foreign trade of all countries, except France and the United States.

The Thames itself forms the PORT OF LONDON; and for several miles below the city the river is constantly crowded with vessels from every part of the world, the masts of which present the appearance of an interminable forest. The limits of the port, however, are London bridge and Deptford. The celebrated docks connected with the port and trade of London, are built on an extensive scale. The tobacco warehouse belonging to the London Docks covers an area of five acres, and the underground vaults, which are 18½ acres in extent, afford stowage for 60,000 pipes of wine.

A knowledge of the inland and coasting trade of London can only be arrived at by approximate calculations. The probable value of merchandize transferred yearly by way of trade, may be estimated at £300,000,000 sterling.

The internal trade of London has been greatly facilitated by a series of Railroads which emanate from it, extending to all parts of the island. Handsome and extensive stations have been erected for these railroads, for the Great Western, at Paddington, for the North Western at Euston Square, for the Great Northern at King's Cross, for the Eastern Counties, which branches into two lines, that of Cambridge and that of Colchester, on the Shoreditch road,—all these on the north side of the river; and on the south side for the South Western Railroad near Waterloo Bridge, and for the South Eastern near London Bridge. The Blackwall and Greenwich Railroads also have distinct stations, the first on Fenchurch street, the other at Bricklayers Arms.

Hampton is about thirteen miles from London by land, and twenty-four by water, on account of the windings of the Thames. The village is unimportant, and the chief object of attraction is Hampton Court Palace.



Hampton Court, England.

The palace, which is situated within an enclosed garden near the west, or perhaps more correctly the north bank of the Thames, was originally built by Cardinal

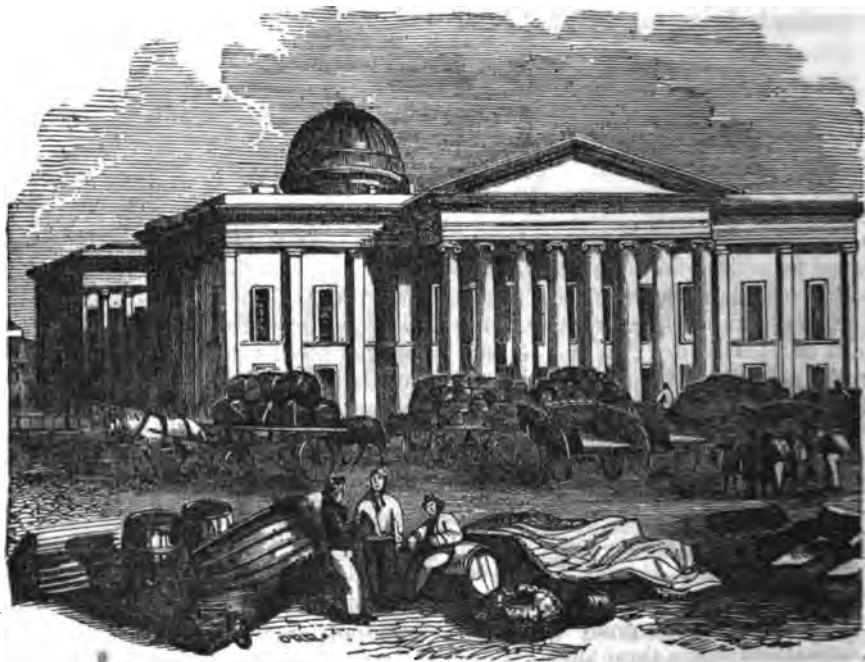
Wolsey, and a portion of the structure which he reared is still extant in the northern quadrangle.

Liverpool, next to London, the greatest port in the empire, is situated in Lancashire, on the east bank of the estuary of the Mersey, at the distance of 36 miles from Manchester, and 204 from London. The town extends for about three miles along the Mersey, and rather more than one mile inland, the situation enjoying a slight slope towards the river. On the side next the country, the town extends into numerous suburban districts, comprehending many villas, the residences of the more wealthy citizens. Liverpool, in 1851, contained 286,487 inhabitants; but, inclusive of the immediate environs, and the persons engaged in navigation, the whole number is believed to be not less than 300,000. Its rise has been surprisingly rapid, equal to that of an American town. In the reign of Elizabeth, it was only a small village; in 1700 there were about 5,000 inhabitants; in 1760, 26,000; and in 1801, 77,653.

Liverpool is the grand medium through which the trade of England with Ireland and America is carried on; and a vast quantity of business is transacted by its merchants with the ports of the Mediterranean, East Indies and other parts of the world. The leading article of import is the cotton so extensively used in the manufactories of Lancashire. The rural produce of Ireland, cattle, bacon, poultry, eggs, etc., forms the import next in amount. The duties paid at the custom-house of Liverpool, average about a fifth of those paid throughout the whole kingdom. About 10,000 vessels, of all kinds, averaging about 200 tons each, visit the port annually. Liverpool is the great outlet for the goods manufactured in Lancashire and Yorkshire for sale in America. In connection with the commerce carried on with the United States, there is a large transit of passengers. This is carried on by means of a periodical series of well-appointed and quick-sailing vessels, usually termed "liners;" but for several years past, it has been conducted also by means of steam-vessels. There are also steam-vessels conveying passengers, daily, to and from Dublin, Glasgow, and several Welsh ports, and only a little less frequently to other Irish harbors, and to several ports in the south-western division of England.

The docks, a magnificent series of deep-water harbors, extend along the whole front of the town. They are 12 or 13 in number, with an aggregate superficies of 30 acres, and eight miles of quays.

The Custom-House is, as might be expected, a conspicuous edifice, but in a heavy



Custom-House, Liverpool.

style of architecture. There are upwards of thirty churches belonging to the establishment, many of them of much architectural beauty; a greater number of chapels belonging to various denominations of dissenters; with six Roman Catholic chapels, a meeting-house for Quakers, and a Jews' synagogue. Among the remarkable objects connected with the town, the ornamental Cemetery of St. James, formed out of an old stone quarry, is worthy of particular notice.

Norwich, in Suffolk, 129 miles north-east from London, is the most ancient of the large manufacturing towns, being early distinguished for its woollens, and still celebrated for worsted goods. It has an ancient and beautiful cathedral, and an old stone bridge over the Yare.



Bishop's Bridge, Norwich, England.

V. SCOTLAND.

SCOTLAND, the northern division of Great Britain, and formerly in itself a kingdom, is separated from England by the Cheviot Hills and a series of rivers. The greatest length of the mainland is 280 miles, from the Mull of Galloway to Dunnet's Head; the breadth is very variable, the greatest being 146 miles, from Buchan-ness to the westernmost point of Ross-shire; but the country is so indented with firths, locks, and inlets, that there is actually no place in Scotland more than 40 miles inland. The area of the land may approximate 25,500, and the islands, about 4,000 square miles, being a total of 29,500.

Surface and Scenery.—Scotland, generally speaking, is so rugged and sterile that it is doubtful if so much as one third of its surface is arable. With the exception, indeed, of a few tracts of rich alluvial soil, it contains no extensive vales; the surface of the country, even where most level, being considerably diversified by hill and dale. Even the finest parts of the low country, though rich and fertile, seldom equal the luxuriance of the southern landscape. Plantations are not spread generally over the country, but are mostly confined to the vicinity of the great mansions, while many districts are entirely destitute of wood. Notwithstanding these disadvantages, the Scottish landscape is singularly pictu-

resque and expressive, and instead of the tameness and monotony which characterize many parts of England, the eye of the traveller is gratified by an endless variety of scene.

Mountains.—The mountains of the northern highlands extend on the west southwards from cape Wrath to the Caledonian Canal, which separates them from the chain of the Grampians. They cover the whole of the western portion of the counties of Sutherland, Ross, and Inverness, and send out branches to the east, particularly in the two latter counties, in which also are the loftiest summits. The country included between Lochbroom and cape Wrath—probably one of the most savage, rocky, and barren tracts in Scotland—has no very high hills, although for a considerable distance inland it is in general elevated 1,000 feet above the sea. The highest culminations of this range are Ben Attow, 4,000 feet; Ben Nevis, 4,373 feet; Ben Wyvis, 3,720 feet; Ben Dearg, 3,551 feet, etc.



John O'Groat's House, the northernmost point of Scotland.

The GRAMPIANS, which divide the Highlands from the Lowlands of Scotland, commence at Loch Etive in Argyleshire, and after passing, in a waving line, through Stirling, Perth, Aberdeen, and Kincardine, terminate between Stonehaven and the mouth of the Dee. The loftiest summits are in the east. Several ranges of no very great elevation are detached from the northern face of the Grampians. The highest summits of these mountains are: Ben Lawers, 3,945 feet; Ben Lui, 3,651 feet; Ben Dearg, 3,690 feet; Cairntoul, 4,245 feet; Ben Macdui, 4,390, etc. Detached summits, mostly granitic, are sprinkled over the whole of Aberdeenshire.

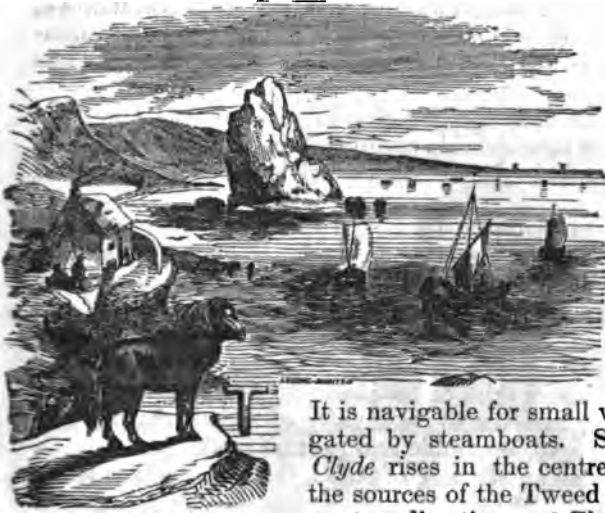
Occupying a portion of the extensive plain, intermediate between the Grampians and the northern continuation of the Cheviots, are two long and elevated ranges of trap-rocks, the one situated, in part, to the north of the Forth and Clyde, and the other to the south of the former river. The northern range commences on the east, a little south of Montrose, and extends south-west as far as Dumbarton. It is known, in its several parts, by the local names of the Sidlaw Hills, the Ochill Hills, the Campsie Hills, and Kilpatrick Hills. The greatest elevations in this range are: Ben Clack, 2,359 feet, and a number of others, varying from 632 to 1,876 feet in elevation.

The range of *Cheviots*, properly so called, are partly in Scotland and partly in England, and divide the countries. A branch proceeds northward, and there are a number of detached elevations belonging to this series of mountains. The greatest heights are: Broad Law, 2,741 feet; Cheviot in Northumberland, 2,658 feet; and others from 370 to 2,500 feet above the level of the sea.

These several ranges form the great features of the country, and are the watersheds from which proceed the rivers flowing in every direction. They are chiefly covered with heath, but in a number of cases they are clothed in grasses, which feed numerous herds of cattle and sheep, contributing largely to the wealth of the country.

Islands.—The chief groups of the Scottish *islands*, are the following:—

1. The *HEBRIDES* or *Western Islands*, between 200 and 300 in number, with a total population of 90,000 inhabitants, who, for the most part, are Roman Catholics.
2. The *ORKNEY Islands*, separated from the northern extremity of Scottish main land by the *Pentland Frith*. They are 67 in number, 29 of which are inhabited, with a total population of 40,000 inhabitants.
3. The *SHETLAND Islands*, still to the north-east, are 87 in number, of which 40 are inhabited. The total population is 30,000.



The little horses of Shetland, known by the name of ponies, are of great use in mountainous districts.

Rivers.—The most important of the Scottish rivers are the Forth, Clyde, Tay, Tweed, and Spey. The *Forth* rises on the east side of Ben Lomond, and runs in an easterly, winding direction, until it unites with the Frith of the same name, at Alloa. The country on its banks is throughout low, flat, and rich.

It is navigable for small vessels to Stirling, but is chiefly navigated by steamboats. Ships of 300 tons reach Alloa. The *Clyde* rises in the centre of the south highlands, not far from the sources of the Tweed and the Annan, and flows in a south-western direction past Glasgow, to the Forth. Near Lanark it is

precipitated over falls of 186 feet within six miles. The Clyde has been rendered navigable up to Glasgow, having been made 13 feet deep to that port. The trade upon it is very extensive, and it is a crowded thoroughfare for boats and steamships. The *Tay* is the largest river in Scotland, rising on the western border of Perthshire, and forms in its course Loch Tay, whence it flows south-east to the Firth, which it joins below Perth. On the east side of Erickstane Hill the *Tweed* takes its rise, and after flowing northward to Peebles, turns towards the east, and flows into the German Ocean at Berwick, forming for the last 16 miles of its course the boundary between Scotland and England. The *Spey* issues from Loch-Spey, elevated 1,280 feet above the sea, and flows in a north-easterly direction into Moray Firth. Besides being one of the largest rivers in Scotland, it is also the most rapid.

Lakes.—Lakes or Lochs of fresh water are very numerous in Scotland; many of them are of considerable size, and all celebrated for their picturesque beauty. They are chiefly among the mountains. The largest of these is *Loch Lomond*, between Dumbartonshire and Stirlingshire. It is 24 miles long and $7\frac{1}{2}$ in its greatest width, and covers an area of 28,000 acres, being the largest in Great Britain. The average depth is 20 fathoms, but in some places it is 80 and even 120 fathoms. Numerous small, beautiful, and densely wooded islets stud its surface, and on its north-east bank Ben Lomond rises precipitously to the height of 3,095 feet. This lake seems formerly to have been called Loch Leven (Smooth Lake), and the river which carries its surplus waters to the tide is still called by that name.

Geology.—The geological structure of Scotland is very varied. In the Highlands the rocks are generally primary, the granite rising into lofty peaks, on which, in many instances, gneiss, and other non-fossiliferous rocks abut or rest. In the Lowlands the rocks are principally of the transition formation (graywacke, etc.), covered in many parts with coal-measures, trap, and red sandstone. Rocks superior to the red sandstone occur only in a few detached places, and in very small quantity.

Granite is dug in the neighborhood of Aberdeen, and at Kirkcudbright, for building purposes. The city of Aberdeen itself is chiefly constructed of it; and great quantities of it are transported to London, Liverpool, and other places, to be employed in building bridges, docks, and other structures, in which unusual durability is required. Slates of

excellent quality for roofing are quarried at Easdale and Ballahulish in Argyleshire, and in other places. Sandstone slabs, for paving, are quarried in Caithness, and at Arbroath in Forfarshire. A fine kind of sandstone is dug in many places, and is the primary cause of the architectural elegance of many of the public and private buildings in the principal towns. Owing to the abundance of both sandstone and trap, both of which are excellently adapted for building, little brick is used in Scotland.

Minerals.—The coal-field of Scotland extends, with slight interruptions, across the central part, from the eastern extremity of Fife to Girvan in Ayrshire; the principal beds are near Dysart and Alloa; in the vale of the Esk near Edinburgh; near the line of the Forth and Clyde Canal; at Paisley in Renfrewshire; and at Dalry, Kilmarnock, and Girvan, in Ayrshire. The Scottish coal is chiefly of a hard and lumpy kind, calculated to burn briskly, and therefore well adapted for manufacturing as well as domestic purposes.

Lead is extensively wrought in the hills near the junction of Lanark and Dumfries shires, and silver was formerly obtained in considerable quantities in the same district. Iron has lately been worked on a great scale in the northern district of Lanarkshire, and in the counties of Renfrew and Ayr.

Soil.—The soil of Scotland is of an exceedingly diversified character. On the comparatively level tracts, much is composed of loam resting on the great clay bed, or diluvium, or of alluvial clay washed down from the hills. Much level as well as hilly ground is also covered by peat bog. On the trap hills, a light and useful soil, composed of the material below, is generally found. A considerable quantity of the arable soil throughout, being composed of reclaimed bog, contains a peaty material. Out of the thirty thousand square miles comprehended in Scotland, about thirteen thousand are totally incapable of improvement; nine thousand are wastes, believed to be capable of improvement; and the remainder are pretty equally divided between arable and pasture land.

In the last century, Scotland had become nearly bare of wood, the only patches being around gentlemen's seats. Within the last fifty or sixty years, this state of things has been greatly changed. Extensive plantations have been formed in most districts, as protection to the cultivated lands. Scottish plantations consist chiefly of larch and fir; but the country also produces oak, ash, and elm in great abundance. It is calculated that about a million of acres in Scotland are now under wood.

Climate.—The climate, as compared with that of England, is cold, cloudy, and wet; yet the temperature is not liable to such extremes as that of either England or France, seldom falling below 25 deg. Fahrenheit, or rising above 65 deg., the annual average being from 45 deg. to 47 deg. The summer is uncertain, and often comprehends many successive weeks of ungenial weather; but, on the other hand, the winters are rarely severe, and often include many agreeable days and even weeks. The backwardness of spring is perhaps the worst feature.

Agriculture.—Husbandry was in a very backward state in Scotland till the middle of the eighteenth century. The Highlands produced herds of the native small black cattle; in the low countries, the higher grounds were occupied, as now, by flocks of sheep; but there was little arable land, and that little was ill cultivated and comparatively unproductive. Since then, Scotland may be said to have been one great experimental farm for the advancement of husbandry in all its forms. The raising of turnips for the winter support of cattle, has been, in itself, a most remarkable improvement. A proper rotation of crops has been studied, and has been attended with the best effects. Old, cumbrous, and expensive modes of tillage have been banished, and the light plough and cart substituted in their place. Draining has improved not only the soil but the climate. Lime, and latterly bone-manure and guano, have been extensively introduced. The productiveness of the soil has, consequently, increased in an immense ratio. Oats, a hardy plant, calculated for most soils and climates, is still the chief grain raised in Scotland, and its meal is still the principal food of the peasantry, of working-people in general, and of the children of all classes of the community; it is said to cover 1,260,000 acres, or a fourth of the whole in cultivation. Barley, which forms a conspicuous article in the food of the common people, and is also used in distillation, occupies 280,000 acres. Wheat is believed to occupy only about 140,000 acres. Potatoes are extensively raised in Scotland, and constitute an important article of food to the working classes. The southern

hills continue, as formerly, to be covered by extensive flocks, and sheep-farming has also been extensively introduced in the Highlands.

Inhabitants.—The Scotch, except a part of the Highlanders, are, like the English, a Teutonic people, with only a few distinctive varieties of character, perhaps partly original, and partly the effect of local and political circumstances. It may be remarked, that though in the main Teutonic, the Scotch do not descend from the same branch of that race as the English. From language and other circumstances, it appears likely that the original colonizers of North Britain were from Scandinavia, Denmark, and Zealand.

The Scotch (taking, as usual, the general characteristics of the people) may be described as a tall, large-boned, and muscular race. Even the women appear, to a southern eye, remarkable for the robustness of their figures. The Scotch figure is not so round and soft as the English. The face, in particular, is long and angular, with broad cheek bones. The cranium is also said to be somewhat larger, and tending more to a lengthy shape than that of the English. A fair complexion and light color of hair abound in Scotland, though there are also many instances of every other variety of tint.

The Scottish character exhibits a considerable share of both energy and perseverance. It may safely be said, that a country with so many physical disadvantages could never have been brought into such a condition as respects rural husbandry, nor, with all the advantage of the English connection, been made so prosperous a seat of both manufactures and commerce, if the people had not been gifted in a high degree with those qualities. A disposition to a frugal and careful use of means is also abundantly conspicuous in the Scotch. The poorest poor, at least in rural districts, are in few instances of such improvident habits as to exhibit that destitution of furniture, clothing, and tolerable house-accommodation, which meets the eye almost everywhere in Ireland. Caution, foresight, and reflection may be said to enter largely into the Scottish character. Under the influence of these qualities, they are slow and sometimes cold in speech, and are therefore apt to appear as deficient in frankness and generosity. These however are, in a great measure, only appearances. That *perfervidum ingenium*, or fiery genius, attributed to them by Buchanan, is still a deep-seated characteristic of the people. On subjects which they regard as important, they sometimes manifest this excitability in a very striking manner. There is a considerable tendency in the Scottish intellect to argumentative reasoning, and this shows itself in the service in their churches as well as in their philosophical literature. The domestic virtues flourish in much the same degree in Scotland as in England; but the humbler classes in North Britain are not nearly so remarkable for cleanliness as the lower English, and they have suffered of late years from the extensive use of ardent spirits. The rural laboring classes are remarkable for their steady industry and decent conduct; and it is only, perhaps, among the lower orders, in large towns, that much moral deterioration has taken place. For centuries, the wandering disposition of the Scotch has been remarkable. An immense number of young persons, every year, leave their native country to push their fortunes in the busier English cities, in public employment in India, in the colonies, or in other parts of the world. These persons have generally a tolerable education, in proportion to their rank and prospects; and being found possessed of steadiness, fidelity, and perseverance, they rarely fail to improve their circumstances.

Population.—The population of Scotland, at the end of the seventeenth century, did not probably exceed a million. In 1755, when an attempt was first made to ascertain it, it appears to have been about 1,265,380. From that time, the country made a start in manufacturing and commercial prosperity, as well as in improved modes of rural husbandry, and the population experienced a considerable increase, though not so great in proportion as the increase of wealth. The various censuses, since 1801, inclusive, give the following results:—

Census.	Population.	DECENNIAL INCREASE.	
		Numerical.	Per cent.
1801.....	1,599,068.....	—	—
1811.....	1,805,688.....	205,820.....	12.8
1821.....	2,093,156.....	267,468.....	15.9
1831.....	2,365,114.....	261,958.....	12.4
1841.....	2,628,957.....	263,843.....	11.1
1851.....	2,870,784.....	241,827.....	9.1

The increase has taken place entirely in large towns, a result of the progress of manufactures and commerce. The distribution of the population in the several counties is extremely diverse. Those containing the large manufacturing cities exhibit the greatest density; while in the agricultural counties, and in the northern Highlands, the ratio to the square mile is inferior. As a general fact, the farther we go north, the more sparse the population becomes, and in Inverness and Sutherland numbers only from 14 to 17 to the square mile. It may be said, indeed, that the Grampians form an impassable barrier between civilization and the desert, for beyond them life seems bordering on extinction.

VI. IRELAND.

Situation and Extent.—IRELAND has a rhomboidal form, having its longer side to the direction of the meridian, and its shorter from north-east to south-west. In the direction of its greatest diagonal, from Brow-Head to Fairhaven, it measures 306 miles; its extreme length from Brow-Head to Malin-Head is 290 miles, and its greatest length on a meridian, 235 miles. Its greatest breadth is 182 miles, but contracts in the centre, where from Galway Bay to Dublin it is only 110 miles. The whole island has an area of 30,387 square miles, of which about two-thirds is capable of cultivation, the remainder consisting of mountains, lakes, and bogs.

Surface.—The surface, though generally level, frequently rises into low hills. On the east coast the mountains attain a considerable elevation; but, with these exceptions, the hilly districts occur in the west. None of these, however, reach 3,500 feet above the sea. The level tracts are generally in the centre of the island, where an extensive plain, comprising nearly a third of its whole superficies, extends from sea to sea, in no part attaining more than 325 feet elevation. The “bogs” of Ireland are its greatest disfigurement. These are found principally in the higher parts of the central district, and may nearly all be included between two lines drawn across the island—the one from Howth Head to Sligo, and the other from Wicklow to Galway—the largest portion lying west of the Shannon. The total quantity of “bog-land” has been estimated at 2,831,000 acres; whereof 1,576,000 are flat red bog, capable of being reclaimed, and 1,255,000 acres mountain bog, mostly convertible into pasture land. The bogs are of several varieties, distinguished according to the substances of which they are composed. The peat is found to rest on a blue clay, with a substratum of limestone gravel. The depth in some places is 40 feet, but 25 may be considered as a general average. In all cases the bogs are above the level of the sea, and their elevated situation is favorable to draining.

Coasts.—The coast line of Ireland, including the estuaries of the great rivers, is about 2,200 miles long. This extended line contains a great number of fine harbors and roadsteads, chiefly in the north, south, and west coast, which being exposed to the full force of the Atlantic, are, as might be expected, indented by deep bays, protected by jutting promontories. These promontories are most numerous on the south-west coast, which lies in the direction of the prevailing winds. The east coast, on the contrary, has but one deep inlet or lough, with sufficient depth of water for every size of ships. The coast to the south of Dublin affords no shelter for large ships; and is besides rendered dangerous by the Shoals which extend along it, near the land. But with this exception, the coasts of Ireland contain numerous harbors and inlets for the reception of smaller vessels; upwards of 70 well suited for the general purposes of commerce, and 14 capable of accommodating large naval armaments.

Rivers.—The *Shannon* is the largest of the Irish rivers. It rises from the base of the Cuileagh Mountains, in the north-west of Cavan, in a limestone cavern, from which it issues through a circular gulf, about 50 feet in diameter, and at once assumes the character of a considerable river. It then flows through Lough Allen, Ree, and Derg, into the noble estuary which meets it below Limerick. From the head of Lough Allen to Limerick is 144 miles, but the total length embracing the estuary is 214 miles. It is navigable to the head of Lough Allen; but the depth is nowhere very great, and is in some places and at certain seasons a good deal obstructed. Large sums of money have been expended, partly in making lateral cuts and partly in deepening the bed of the river at those places.



Dublin Light-House.

Lakes.—Ireland is a country of lakes. *Lough Neagh*, the largest, is about 20 miles long and 10 in breadth, with a superficies of nearly 100,000 acres. It is fed by several rivers, and communicates with the sea through the Lower Bann. Its surface is 48 feet above the sea, and its depth 102 feet. Its navigation is rendered dangerous on account of frequent squalls and the want of harbors. Its waters are celebrated for their petrifying qualities. *Lough Erne*, in Fermanagh, consists of two lakes connected by a winding passage. It extends about 40 miles in length, and covers about 40,000 acres. Several islands appear on its surface. Its elevation above the sea is 150 feet, and it discharges itself by a rapid current of 9 miles, which terminates at the cataract of Ballyshannon. The *Lakes of Killarney* lie in the midst of the mountains of Kerry, and are celebrated for their picturesque beauties more than for their extent. *Lough Allen*, *Ree*, and *Derg* are formed by the Shannon. Besides these, there are many other lakes in Ireland, at various elevations and as various in size, the total superficial area of which has been computed to amount 455,399 acres.

Geology.—Though the physical and geological structure of Ireland is similar to that of England, still the relative geological positions of the rocks are essentially different. In Ireland, the coasts are for the most part mountainous, while the interior is flat, covered with rich and fruitful soil, and seldom presenting any considerable elevations. Carboniferous rock underlies the whole middle districts, while the primary rocks are noted in the mountain tracts on the north-west coast and some few other situations. These districts contain rocks of the crystalline or igneous class, as well as those of the sedimentary. With the exception of granite, which is used as a valuable building stone, and some inferior slates, the only valuable rock, in an economical point of view, which occurs, is primary limestone, which is burned into lime for manure. In some places, however, the limestone beds produce beautiful varieties of crystalline marble, and various colored serpentines, which are obtained in large blocks. Metaliferous veins permeate these districts, but only a few have been worked. The great interior valley is composed of secondary rocks, consisting of old red sandstone, carboniferous limestone, coal, etc. Besides the coal

which occurs in thin and impure beds in the millstone-grit series, there are six other coal districts which appear to belong to a distinct formation, the whole of which, except that of Antrim, rest upon the upper or splintery limestone. They contain two distinct kinds of coal, the anthracite and bituminous. The first, with the exception of the small beds in Antrim, are all situated to the south of Dublin; the second, to the north of that city. The coal districts of other parts of Ireland are little known and have scarcely been worked. Basalt, both tabular and columnar, occurs in the north, and covers a large area. The Giant's Causeway is a specimen of the latter, as also the remarkable formations at Doon Point on the Island of Rathlin. Potters' clay is extensively spread over Tipperary and in some other parts. Throughout the central parts are vast accumulations of diluvial matter, composed generally of clay and limestone gravel, in the form of low but steep hills, which, under the name of "Eskers," circumscribe the bogs, and probably have been the means of their origin by confining the stagnant water above the level of the dry country. Mineral springs are numerous—most of them chalybeate.

Soil and Productions.—The prevalent soil in Ireland is a fertile loam resting on a limestone foundation. The soil, though of no great depth, is sufficiently so for all agricultural purposes, and yields well with proper care. Tipperary and Limerick possess an extraordinary fertility. In some parts of Ireland the rocks rise above the surface in wave-like succession, the interstices being filled with rich mould, and covered with a thick close sward, which affords excellent pasturage. Large districts of grazing land are seldom met with. The only extensive tract of this description is the Curragh of Kildare, which has been used from time immemorial as a sheep-walk. The mountains are capable of tillage for a considerable height, and their summits, except in a few instances, afford an abundant pasture for sheep in summer. The vegetable and cereal productions are entirely the same as in England, the difference being in the relative amount of the several staples. Potatoes and oats form a large moiety of the agricultural growths.

Ireland was formerly entirely covered with vast forests, which, in the early period of its connection with England, formed the chief obstacle to the progress of the invaders. The roof of Westminster Hall is built of timber cut in the wood of Shillalagh. Trunks of large trees are frequently found in the bogs; and even in the mountain tracts, which have long been devoted to sheep-walks, trees shoot up spontaneously whenever the land is secured from the intrusion of cattle. Timber is now scarce in Ireland, but the extension of agricultural improvement, and more especially the "Timber Act," which gives the tenant an interest in the trees he may plant, are gradually remedying this important want.

Climate.—The climate of Ireland is much milder and more equable than that of England. The winters along the western coast are especially mild, no doubt occasioned by the prevalence of the west winds. Frost and snow are not frequent, and are seldom of long continuance in the southern and south-western districts. In these, however, the falls of rain are heavy during the autumn and winter. Notwithstanding the general mildness which prevails, and which preserves the verdure of the fields throughout the year, the seasons are generally later than in England. On the whole, the climate is well adapted to vegetation, and it is seldom that such famines as those which desolated the years 1846–7–8 occur. These, however, were extraordinary years, and owed their short-comings to the loss of one staple—the potato—which suffered alike in other parts of Europe, and also in America.

Agriculture.—The agricultural system of Ireland has been, till lately, in the worst possible state. In the grazing counties farms were spread over thousands of acres, but in the counties where tillage is the chief occupation, they were very small, and often limited to two or three acres. These small patches were held at rack-rent by the miserable cultivators, who derived from their labors only the scantiest and poorest subsistence for themselves. In such circumstances improvement was out of the question, and besides, the peasantry are so wedded to the usages of their forefathers, that no persuasion can induce them to adopt new and improved methods of increasing the products of their farms. Hitherto the indebtedness and want of enterprise and of the spirit of improvement, no less among the landlords than the tenants, have proved great obstacles to improvement; but for this the change of property, now going on by the sale of encumbered estates, is likely to afford a remedy.

Population.—The Irish originally belong to the Celtic stock, and a dialect of the Celtic language, nearly akin to the Erse of Scotland, still prevails in the south and west. Since the conquest by Henry II., the English and the English language have pervaded Ireland, so that the present is a very much mixed race. Many Scottish families have also settled in Ulster, and have transfused much of their peculiar character into that portion of the island. For centuries the Irish have been treated as a conquered people: their country has been parcelled out to strangers, whose descendants still live among them as strangers, or, as in numerous cases, spend at a distance the revenues they derive from the soil by means of hired servants or lessees, caring little for the improvement of the abject natives.

The parliamentary censuses, the first of which was taken in 1811, exhibit the following results:

Census.	Population.	DECENNIAL INCREASE	
		Numerical.	Per cent.
1811.....	5,987,856.....		
1821.....	6,801,827.....	863,971.....	14.6
1831.....	7,784,965.....	982,538.....	13.6
1841.....	8,176,124.....	441,759.....	5.7

The census of 1851 exhibits a remarkable change, an index of a great social revolution now going on in Ireland. By that census the population amounted to only 6,515,794, a falling off, in ten years, of 1,660,330, carrying back the population to less than it was in 1821. The first cause of this diminution was the famine of 1846–8, occasioned by the potato-disease. That famine not only destroyed a great number of the people, but it gave a vast impulse to the spirit of emigration to America, which had been gradually growing for several years previous, stimulated by remittances sent home by those who had already emigrated. Though the famine has ceased, and labor is now better paid in Ireland than it ever has been before, the emigration continues to be kept up on a very great scale, and the population still goes on diminishing. But as Ireland is almost entirely an agricultural country, and its people only skilled in the rudest kinds of hard labor, it has still a large surplus of population which it can part with and be benefited thereby.

Exports and Imports.—The exports are chiefly provisions. In the year ending June 5, 1852, there were exported to foreign countries, 70 hogs, 1,119 cwt. of bacon and hams, 1,853 barrels of beef and pork, 22,180 cwt. of butter, 756 quarters (of 8 bushels each) of wheat and flour, 5,808 quarters of oats and oat-meal, 867 gallons of Irish spirits, 50,964 yards of linen, 8,668 lbs. of linen yarn, 191,066 yards of cotton cloth; and to England and Scotland 183,760 oxen and cows, 2,474 calves, 151,807 sheep, 136,162 swine, 95,116 quarters of wheat and wheat flour, and 1,141,976 quarters of oats and oat-meal. The foreign imports, entered for consumption in the same period, those that are imported directly into Ireland, were 499,131 gallons of wine, 202,498 gallons of foreign spirits, 4,497,960 lbs. of tobacco, 6,573,278 lbs. of tea, 684,840 lbs. of coffee, 438,873 cwt. of raw sugar, 28,828 cwt. of refined sugar, 338,412 bushels of flaxseed and linseed, 5,138 lbs. of cotton, 1,393 lbs. of raw and thrown silk, 7 tons of iron, 78,175 loads of solid timber, 75,776 loads of sawn timber. The consumption of domestic spirits, during the same period, was 7,550,518 gallons, which paid an excise duty of £1,006,735.

VII. EUROPEAN DEPENDENCIES OF THE BRITISH EMPIRE.

1. **HELIGOLAND.**—This group of two small islands in the German Ocean, 25 miles from the mouth of the Elbe, belonged formerly to Denmark, but was captured in 1807 by the British, who still retain it. The main island consists of a cliff, which rises almost perpendicularly from the sea, to a height varying from 90 to 170 feet, and is surmounted by a light-house. Between the main island and the other, which is named Sandy Island, is a road, where ships may anchor in 48 fathoms. The inhabitants, about 2,500 in number, live entirely upon the cliff, and subsist chiefly by fishing and acting as pilots. They are Frieslanders; retain their ancient manners and customs; and obtain turf, wood, and other articles of subsistence, from Hamburg and Cuxhaven, in exchange for fish. The island was formerly very much larger, but has been, in the course of the last thousand years, re-

duced by the action of the sea to the existing fragments. It was also, in the middle ages, a place of great trade.

2. **GIBRALTAR.**—Gibraltar is an inconsiderable town, of some 12,000 inhabitants, built upon the west side of Mount Calpe, one of the Pillars of Hercules, which rises abruptly from the sea to the height of 1,439 feet, and is defended at every accessible point by formidable batteries. The mountain extends nearly three miles in length from north to south, and three-quarters of a mile in its greatest breadth, terminating in the sea at Europa Point, and connected with the mainland by a flat, sandy isthmus 1,000 yards wide, but only a few feet above the level of the sea. The south and east sides form a line of almost perpendicular precipices, but the south and west sides fall in rugged slopes, with occasional flats or terraces. It derives its name from Tarek, a Moorish general, who first built a fort here in the 8th century. It was recovered from the Moors in 1462 by the Spaniards, from whom, in turn, it was taken in 1704 by the English, who have retained it ever since. It is now so completely fortified as to be deemed impregnable, and has always a garrison of about 3,000 British troops. It derives its importance from its command of the entrance into the Mediterranean Sea.

3. **MALTA.**—Malta and its dependencies embrace a group of islands situated in the Mediterranean Sea, about 63 miles S. W. of Cape Passaro in Sicily, and extending, in a line from north-west to south-east, a length of 28 miles. *Malta*, the largest, is of an irregular oval figure, about 16 miles in length by 8 or 9 in breadth, and is composed of calcareous rocks, which slope like an inclined plane from the level of the sea towards the south and east, where they attain the elevation of nearly 200 yards. The surface is composed of small valleys, defiles, and hills, which extend across the breadth of the island. In most places the rock is entirely naked, except where the hand of industry has placed over it a layer of earth, brought originally from Sicily and other places. *Gozo*, the most northerly, is more elevated than Malta. The surface is not so uneven, and is consequently more easily cultivated; the pasture land is good, and great numbers of cattle are fed on it. The grapes of Gozo are peculiarly fine. Cotton and grain are cultivated with success. *Comino* is a small island, two miles in length, between Malta and Gozo, and partakes most of the character of the latter. — Area of the islands, 213 square miles; population, 140,000.

4. **IONIAN ISLANDS.**—These islands lie off the western coast of Greece, and are seven in number, namely: Corfu, Cephalonia, Zante, Santa Maura, Ithaca, Cerigo, and Paxo. The area and population of each is noted in the following table:—

<i>Islands.</i>	<i>Area in sq. miles.</i>	<i>Population.</i>	<i>Capitals.</i>	<i>Pop.</i>
CORFU.....	227.....	64,556.....	CORFU.....	25,000
CEPHALONIA.....	348.....	69,984.....	Argostoli.....	5,000
ZANTE.....	156.....	38,929.....	Zante.....	20,000
SANTA MAURA.....	180.....	18,676.....	Amaxichi.....	6,000
ITHACA.....	44.....	10,621.....	Vathi.....	2,500
CERIGO.....	116.....	11,694.....	Kapsali.....	5,000
PAXO.....	26.....	5,017.....	Port Gai.....	1,500
Total, 1,079		219,677		

The inhabitants are, for the most part, Greeks; but besides them, are many Italians, English, etc. The Greek population is divided into three classes, the nobility, burghers, and peasantry. The nobility is not only possessed of nearly all the real estate, but occupy also the higher political and ecclesiastical offices.

The surface of the islands is more or less mountainous; earthquakes occur frequently; the climate is unusually mild. The soil is comparatively rich in the fruits and products of southern Europe, especially in olives, currants, and the vine. The rearing of cattle is rather insignificant. The fabricating industry is restricted to some manufactures of silks, cottons, and linen. The commerce is very considerable; of currants alone, nearly 20,000,000 pounds are annually exported. The schools are in a very good condition. In 1823, a university was founded at Corfu, which is frequented by 250 or 300 students annually; and beside it, there are 2 gymnasiums, more than 60 elementary schools, etc.

The government is an aristocratic republic, under the control of a British lord high

Commissioner. The legislative power is vested in an assembly of 40 members (11 of whom are life-members), and the executive power in a senate composed of 6 members of the legislative assembly, and a secretary of state, appointed by the lord high commissioner. Beside 1,600 men of Greek militia, there are 4,000 men, regular troops, kept here by Great Britain. Corfu is a chief station for the British fleets in this part of the Mediterranean.

On the fall of the eastern empire, the Venetians afforded protection to and claimed the sovereignty of these islands. The Turks strove hard to acquire them, without success. On the downfall of Venice the French seized upon them, but evacuated them on the breaking out of the war in 1798-99, when they were taken under the joint possession of Russia and Turkey. By a secret treaty they were transferred to Napoleon by the Emperor Alexander, but during the continental war they were captured by England, and at the peace of 1815 were allowed to remain under the protection of Great Britain.

VIII. FRANCE.

Surface.—France exhibits an advantageous commixture of high and low lands. The greater part of it is composed of river basins, separated by mountains and hills, which expand into plains as they approach the coast. The most distinctly marked of these basins is that of the Rhone, in the south-east, which stretches through five degrees of latitude, from the sources of the Saone to the Gulf of Lyons, and is divided from the basins of the Po and the Var by the Maritime and High Alps, and from that of the Aar and Rhine by the Ranges of the Jura and Vosges mountains. The western boundary of this extensive basin is formed by the Cevennes, a long range which starts off from the eastern Pyrennees, and after running parallel with the Mediterranean for 170 miles, divides into three branches. The most easterly branch continues northward parallel to the course of the Rhone and Saone, and, after some interruptions, terminates in a hilly plain, (the plateau de Langres,) about 1,000 feet above the level of the sea. This plain is connected with the Vosges by a low chain of hills, called *Monts Faucilles*, which completes the circuit of the basin.

The other two branches of the Cevennes, known by the names of Forez, and the mountains of Auvergne, form, between them and the eastern branch, the vallies of the Allier and the Upper Loire, and are the eastern border of a high and hilly region, which decreases in elevation as it extends westward to the sources of the Charenton, from which point to the sea the country sinks into a low and level plain.

The other river basins are almost as distinctly marked as those of the Rhone, the Allier, and the Loire, with this difference only, that the watersheds which bound them are formed by ranges of hills of very moderate elevation, and in some places even scarcely rising into hills; but all connected more or less remotely with the great central and border mountains. The principal of these basins are those of the Loire and the Seine in the centre; those of the Somme, Scheldt, Meuse, Moselle, and Rhine, in the north; those of the Charenton, Dordogne, Garonne, Lot, Tarn, Adour, Aude, Herault, etc., in the south-west and south.

Geology.—France contains formations of every description, from the non-fossiliferous strata to those of tertiary and alluvial, and likewise igneous rocks, from the older granite and trap to the comparatively more recent extinct volcanic. The Alps and Pyrennees abound in mica slate and gneiss. In Bretagne is exhibited the older graywacke-slate. From the centre to the south of France, and in the north-east, the Silurian system is developed.

The geology of France has been brought most prominently into notice by the contents of its tertiary basin on which stands the city of Paris. The strata consist of four principal masses. The first or lowest is a marine deposit; the second is fresh water; third marine again, and the fourth or upper, fresh water, evincing as many changes in the relative level of the sea and land. The lowest fresh water contains much gypsum or sulphate of lime, from which the plaster of Paris is made. From this mass of the

group have been disinterred numerous organic remains of extinct animals. Involved among the volcanic products of Auvergne and in some other places, similar remains have been discovered in the tertiary strata.

Minerals, coal, etc. — There are thirty-six coal-fields in thirty departments. The most important are those of the Loire, which extend over an area of 42,000 acres, between the Loire and the Rhone, by which their products are conveyed to Marseilles, Paris, etc. The next in importance are those of Nord, Saone, and Loire; Avignon, Garde, Calvados; the produce raised in the remaining departments is very small. Of late years the productiveness of the mines has greatly increased, but is yet very far from having reached its limit. In 1814, the annual quantity raised was less than 700,000 tons; now it amounts to nearly 3,000,000 tons. In the production of iron, France ranks next to England. There are twelve distinct localities, or districts, in which the making of iron is prosecuted. The production of other metals is of little or no commercial importance. Salt is made in various parts; but the principal place of production is the Salines de l'Est, near the small town of Salines, in the department of Jura. Bay salt is evaporated on the southern coast. Mount Jura supplies asphaltum. The neighborhood of Paris abounds with quarries of freestone, and the houses of that city are chiefly constructed of this material. There are marble quarries in several of the mountain districts, but not in situations to admit of exportation. The number of persons depending on mining operations is about 300,000, and the annual value created by their labor may be estimated at \$80,000,000.

Climate. — The climate of France, though varying much in different localities, is in general genial, and well-adapted to extensive and profitable agriculture. In the north-west it assimilates in some degree to that of England, and rain is frequent. Here the country is well-adapted to pasturage; and as in England, the principal objects of culture are wheat, barley, oats, rye, and such fruit as apples, pears, and cherries; also hemp, flax, and rape-seed. It is in this division of France alone that the natural pastures are rich and extensive. In the central regions, with the exception of the mountain districts, the winters are short and mild; and, along with the more hardy grains, maize is cultivated, and the vine flourishes. The weather here is more steady than in the north. In summer there is little rain, and storms, when they occur, are frequently accompanied with hail; but on the whole, the temperature is, perhaps, the most pleasant in France, being exempt from all extremes. The climate of the southern districts approaches that of Italy and Spain. The heat of the summer mid-day is oppressive, and irrigation is necessary for the purposes of agriculture. The whole country is thickly-planted with the vine, which here finds its natural climate and soil. The common fruits are the olive and the mulberry; and in a few of the warmer situations, the orange and lemon. Good pasture is found only on the hills or in the well-irrigated plains.

Scenery. — The scenery of France, devoid of all ornamental plantations and of the thick-set hedges which are seen in England, is to an unusual degree tame and irksome, and the traveller in vain looks for the cheerful and varied aspect so characteristic of England. The fresh pastures and gentle eminences of Normandy are exceptions, and are truly beautiful. Picardy, Poitou, and Champagne consist of wide, uninteresting levels, while Auvergne, Upper Languedoc, and the vicinity of the Alps and the Pyrenees contain bold but bleak scenery. The most picturesque views are found in Limousin, or on the borders of the great rivers. The banks of the Loire, from Orleans westward, are proverbially beautiful. The Rhone, which is bordered by mountains, presents generally a bold aspect, varied occasionally with gloomy wildness. The Seine flows through verdant but less striking scenery.

Soils. — The area of France is approximately distinguished into the following characters in relation to its soils: —

Mountain country.....	8	Soil of Sandy.....	10
Landes.....	10½	“ clay.....	5
Soil of rich mould.....	14	“ marsh and swamp.....	0½
“ chalk.....	18	Various soils.....	14
“ gravel.....	7		
“ stony.....	18	Total.....	100

One-half is arable; 9 parts meadow; $4\frac{1}{2}$ vineyards; 15 woods and forests; 15 downs, pastures, and heaths, etc.; the remainder being occupied in a variety of ways, or consisting of cities, roads, canals, etc.

Agriculture, etc.—The soil is, upon the whole, fertile; yet there are also many barren and desert tracts, together amounting to 7,799,672 hectares, or 30,279 square miles (nearly one-seventh of the total area of France). Of the arable land, about 14,000,000 hectares (or 54,346 square miles) are appropriated to grain-raising; and in 1843 there were 5,338,043 hectares ($257\frac{1}{2}$ hectares are nearly equal to one English square mile) cultivated with wheat, of which a greater quantity is produced than in any other European country; 2,638,948 with rye; 1,300,186 with barley; 2,840,360 with oats; 700,890 with buckwheat; and 595,227 with maize and millet. Upon an average, the annual produce is about 333,000,000 bushels of grain, 128,000,000 of which consist of wheat; beside which, the annual harvest of potatoes may be computed at 170,000,000 bushels. All the grain raised in the country is, at times, not sufficient for home consumption; and, in the period from 1815 to 1841, grain was imported from foreign countries to the amount of 464,000,000 francs in value. The agriculture in France is generally in a backward state, or at least inferior to that of England, Belgium, and Germany.

Next to wheat, the most important of all the vegetable productions of France is the vine, the cultivation of which extends, more or less generally, over the half of the country, beginning as far north as Champagne, and spreading over the country to the south and the west. The cultivation, however, is limited, north of 45 deg. From the great variety of the soil and climate, French wines differ greatly in quality and flavor; and it is only in the extreme south that the best are procured. Since the commencement of the present century the demand for this article has greatly increased, and as a consequence, its production has been stimulated to an extraordinary extent. It is computed that 5,000,000 acres are now planted with vines, and that the annual value of wines and spirits produced varies little from \$130,000,000; of which only an eighteenth part is exported. The best brandy is distilled in the vicinity of the Garonne. Other productions of the vegetable kingdom are, principally: madder (in the environs of Avignon and other parts of Provence, and in Languedoc); sugar-beets (of which at least 82,000,000 lbs. of sugar are made annually); olives (renowned is the olive-oil from Provence); tobacco (cultivated only in Brittany, Gascony, French Flanders, and Alsace, the tobacco-trade being a monopoly of the government); capers, almonds, and truffles.

The rearing of cattle is in France, even more than agriculture, in a backward state, and in 1843 the total number was only 9,130,632. The best breed is that of Normandy and Auvergne. For the home consumption, the cattle reared in France are not found sufficient. The number of horses throughout the country is estimated at 2,500,000; the finest breed is to be found in Normandy and Limousin, but even these horses are inferior to those of Mecklenburg, Oldenburg, and other parts of Germany, from which countries numerous horses are annually imported to remount the French cavalry. In Poitou and Auvergne are reared fine mules. The numbers of sheep (the finest breed is in Berry) amounted, in 1843, to 29,130,231. Of goats, the fine breed from Angora and Thibet, introduced into France since 1819, thrives well in the southern provinces. In these provinces the rearing of silk-worms is also very important.

Before the revolution of 1789, France had extensive and valuable forests; but they have since been thinned so extravagantly that in 1843 no more than 7,422,315 hectares, or only about the seventh part of the total area of France, were still wood-land; of which, moreover, only the fourteenth part consisted of forests of tall trees.

There is no country where landed property is so much divided as in France; and an indefinite division will be the consequence of the present laws of devise. Each child receives an equal share of the father's lands on his death, and thus from year to year the farms are cut up. The consequence of this is, that the French are a nation of small farmers, and the abilities of each to introduce improvements circumscribed. To occupy a farm of 200 acres, places a man in the foremost rank of farmers. Larger possessions are common in the pastoral districts, but such districts are rare; and in the greater part of the country the farms under tillage are of 50, 40, 30, 20, or even 10 acres; there being, it is computed, not less than 3,000,000 of such petty occupants.

The peasantry of France are extremely illiterate, but are by no means slow or phlegmatic. They exhibit, like the rest of their countrymen, no small degree of sprightliness and activity in the individual, with very little concert or combination in the mass. The houses of the farmers, and still more those of the cottages, are poor, dirty, and comfortless; their implements are rude; their harrows have wooden teeth, and even the ploughs, in some less-cultivated districts, are almost entirely of the same material. The corn and hay is stacked, but not housed; and the winnowing machine is nearly, and the threshing machine wholly, unknown. Threshing with a flail, or trampling out the seed by horses or mules, are still prevalent. The food of the peasantry is exceedingly simple, and the villages they inhabit are often ill-situated and ill-built.

Manufactures.—Arts and manufactures have experienced a more rapid development than agriculture. Steam-power is now generally applied. Immense progress has been made in the arts of metallurgy, dyeing, the preparation of animal substances, and in the weaving of various kinds of cloth; but it is in the manufacture of cashmeres and damasks, paper, watches and clocks, fine and common pottery, in lithography, in dyeing silks and cotton thread and tissue; in paper-staining; cutting and polishing crystals; the fabrication of arms and the preparation of chemical substances, that the greatest progress and improvement has been effected. Coal-mining has been greatly extended, and the establishment of a great number of furnaces, the introduction of heated air into the process of smelting, and the use, which is becoming daily more general, of iron in buildings, have given a lively impulse to the iron-trade.

The woollen manufacture is one of the oldest and most widely diffused. The cloths of Sedan, in Champagne, and Louviers, in Normandy, are of the finest quality. The mountain-districts of Languedoc, which contain immense flocks of sheep, are the seat of the manufactures of serges, tricots, and other coarse woollens; a great part of which is made at home during the intervals of out-door labor. Rheims is the chief seat of a highly finished species of woollen manufacture, that of shawls, veils, ladies' cloth, etc. Similar articles are made at Paris; and the French shawls, in particular, now rival in beauty those of Persia and the East.

The cotton manufacture was first introduced in 1770, and since 1812 has probably tripled in extent and importance. The principal districts engaged in this branch are Rouen and the adjacent towns in Normandy; Lyons and Tarrare; Lille, Cambrai, and other places in French Flanders; Paris and its neighborhood; St. Quentin, Abbeville, Amiens, and other towns in Picardy; Troyes and the adjacent towns in Champagne; Mulhausen, Bischweiler, and other places in Alsace. The total number of persons employed seems to be 250,000.

A large number of people are engaged in the linen manufacture. In the north particularly, every farmer covers a little spot with hemp or flax, sufficient to employ his wife and daughters in spinning during the year. The whole of Normandy is engaged, more or less, in this important branch of industry. Coarse linens, canvas, and sacking are made in Bretagne; but Anjou affords a superior article; the toiles of Laval have long been in repute, and give employment to more than 25,000 men. At Lille, about 50,000 hands are employed in fine fabrics, and in the spinning of thread. Fine linens are manufactured at St. Quentin, and employ about 40,000 persons. Cambric, thread, gauze, and lawn, rank among the leading manufactures of the north-east of France; and lace, of the most exquisite descriptions, is produced in large quantities at Valenciennes, Dieppe, Alençon, Caen, Bayeux, and Argentan. There are also large manufactures of printed linens; and the dyeing of linen thread gives rise to an extensive trade. At Rouen this branch is carried on, and linen articles of great variety are there produced.

The manufacture of paper has long been preëminent in France, and the finest descriptions are produced.

In the manufacture of silk, France bears the palm from the rest of Europe. Mulberry trees, which are indispensable for the support of the silk-worm, were introduced in the 15th century, and were first planted near Tours. It is now common to twelve departments. Besides the native product, much silk is imported, chiefly from Italy. The manufacture is considered important, and is most largely carried on in Paris and Lyons; in the latter city it gives employment to 60,000 or 70,000 persons.

Leather is manufactured to the yearly value of 65,000,000 francs. Jewelry, and watch and clock work, are made chiefly in Paris. Paris is, indeed, remarkable for every fabric of taste and luxury. The porcelain of St. Severs, and the beautiful but expensive tapestry of Gobelins, are highly valued. Soap, oil, liquors, hats, perfumery, earthen-ware, saltpetre, and other chemical articles, are also manufactured to a large extent. In the manufacture of the finer chemicals, especially the vegetable alkaloids, the French have long excelled, and their articles have a preference in all markets. The total computed value of goods manufactured in France is about 1,600,000,000 francs annually. Trade is much more confined, however, to home consumption than in England. The only articles imported largely are cotton and silk; little is exported; and, as a consequence, the productive industry is not so liable to fluctuations as in countries depending on others as customers.

Fisheries.—The fisheries of France may be divided into three classes: the home-fisheries; the cod-fisheries, on the banks of Newfoundland; and the whale-fisheries. Along the north coasts cod, mackerel, herring, and pilchards abound. On the Atlantic and Mediterranean, great quantities of sardines are caught. On some parts of the coast, the inhabitants derive their chief subsistence from oysters and muscles. Lobsters are also abundant. The home-fisheries, being little calculated for forming seamen, have been neglected; while repeated attempts have been made by the government to extend the cod-fishery of America. Enormous pecuniary bounties have been allowed for its encouragement, but still with little success. The fishery is not flourishing, and depends, even for existence, on the favor of government. The whale-fishery was established in 1784, and is still carried on under a system of bounties, with almost as little success as the cod-fishery. Havre is the chief depôt of the whaling business.

Commerce. As a commercial nation France is only second-rate, and vastly inferior to either Great Britain or the United States. The productions of industry, as well as those of the soil, give rise to a large internal commerce, but with foreign countries exchange is comparatively limited. The most important commercial towns are Paris, Lyons, Rouen, St. Etienne, Beaune, Aix, Toulouse, Montpellier, Lille, Strasbourg, Nancy, Mulhausen, and Perpignan. The inland commerce is chiefly transacted at fairs, which are held periodically in all the great towns in the country, and the facility and cheapness of land-carriage, by railroads, etc., are peculiarly beneficial to the merchant. The extent of the business effected cannot well be ascertained. The chief articles of import from foreign countries are horses, cattle, raw-silk, tallow, peltry, wool, leaf-tobacco, dye woods, oil, various metals, hemp, cotton, indigo, sulphur, colonial produce, and spices. The principal exports consist of the manufactures of the country, wines, brandies, perfumery, etc., with fruits and confectionery. Paris itself furnishes more than a fifth part of the whole. The ports are Marseilles, Le Havre, Bourdeaux, Rochelle, Dunkerque, Bologna, Dieppe, Bayonne, etc. The average annual value of exports from 1825 to 1833 was \$130,000,000; and of the imports, \$124,000,000. By 1846 the exports had risen to \$230,000,000, and the imports to \$250,000,000, and they have since increased.

The distribution of the foreign commerce of France, and the amount of transactions with each country, is exhibited in the following table, which is abstracted from the "Tableau General du Commerce de France" for 1846, published by the administration of Commerce at Paris:—

Countries.	Imported into France.	Exported from France.
	France.	France.
Great Britain.....	79,000,000.....	113,000,000
United States.....	111,000,000.....	100,000,000
Sardinia.....	107,000,000.....	49,000,000
Belgium.....	101,000,000.....	48,000,000
Russia.....	52,000,000.....	.....
German Union.....	47,000,000.....	62,000,000
Martinique.....	.....	22,000,000
Turkey.....	38,000,000.....	.....
Spain.....	36,000,000.....	73,000,000
Switzerland.....	20,000,000.....	47,000,000
Algeria.....	.....	24,000,000

The following are the estimated amounts of the principal imports and exports for the same year:—

<i>Imports.</i>		<i>Exports.</i>	
Cotton, raw.....	114,000,000 fr.	Silks, figured.....	146,000,000 fr.
Corn.....	90,000,000	Cotton cloth.....	140,000,000
Silk, raw.....	77,000,000	Woollen cloth.....	100,000,000
Timber.....	53,600,000	Wines.....	46,000,000
Sugar.....	49,000,000	Toys.....	28,000,000
Wool.....	26,000,000	Hides, wrought.....	27,000,000
Coal.....	29,000,000	Linon and Hemp cloth.....	28,000,000
		China and glass.....	21,000,000

Railroads, etc. The avenues of internal communication in France are entrusted to the management of the board of roads, bridges and mines. The business connected with this board is very extensive, and looks to the general safety of the great travelling public. The corps of engineers of roads and bridges is composed chiefly of the most distinguished pupils of the "Ecole Polytechnique." The country is divided into 12 inspections, entrusted to division inspectors, and under these are chief engineers, who reside in the principal towns of the departments composing the inspections respectively. There are in France 28 high roads, which are well kept; 97 departmental roads, and a great number of cross or country roads. The high roads extend altogether 8,623 leagues; departmental roads, 8,505—in all, 26,792 leagues, or about 72,000 miles. The railroads of France centre at Paris, and thence diverge to every point. In 1842, the French government resolved that a system of railways should be planned and executed. With this view, it was determined that from Paris, as a centre, main branch lines should issue, to be directed to those points of the frontier, by land and by sea, that should best serve the purposes of foreign commerce. The total length of seven lines, connecting Paris with the Atlantic and Mediterranean, and with the Belgian, Swiss, German, Italian and Spanish frontiers, is 4,337½ miles. Of this sum about four-sevenths was (July 1852) completed and in operation. For these lines the expense borne by the State amounts in its grand aggregate, to \$43,000,000. But, as the State will, at that date, have received from the various companies the sum of \$31,000,000, the actual outlay of the State will be reduced to the sum of \$12,000,000. It is believed that unless some unforeseen events should intervene to prevent, the whole system will be completed by the end of the year 1859.

<i>Names of Railways.</i>	<i>No. of miles worked.</i>	<i>Receipts for 1852.</i>
North, Paris and Bologne, etc.....	441	\$5,597,535,
Auxon and Serpaign.....	118½	36,245
East, Paris and Strasbourg.....	840½	3,070,191
Mulhouse and Thann.....	18	324,486
Strasbourg and Basle.....	87½	504,682
Paris and Lyons.....	267½	3,353,663
Montercan and Troyes.....	62	263,609
Saint Etienne and Lyons.....	41	947,458
Saint Etienne and Andrezieux.....	11½	85,316
Andrezieux and Roanne.....	42½	184,864
Avignon and Marseilles.....	74½	811,038
Railways of Gard.....	57½	..
Montpellier and Nîmes.....	83	729,249
Montpellier and Cette.....	17½	..
Bordeaux and Trieste.....	33	50,400
West Paris and Chartres.....	61½	538,451
Paris and Versailles, left bank.....	10½	158,754
Paris and Versailles, right bank.....	14½	520,303
Paris and Rouen.....	87	1,819,064
Rouen and Havre.....	57½	730,793
Dieppe et Fecamp.....	31½	169,215
Paris and Orleans and Corbeil.....	82½	..
Centre Railroad.....	151½	..
Orleans and Bordeaux.....	157½	5,007,067
Tours and Nantes.....	121½	..

Paris and Saint Germain.....	16½	283,258
Paris and Soean.....	6½	53,028
Totals.....	2300	\$24,745,933
Total receipts for 1851.....		20,002,912
Excess in favor of 1852.....		\$4,733,056

This excess of nearly five millions of dollars in the receipts of the year 1852 over those of 1851 is to be attributed mostly to the completion or extension, during the year 1852, of several of the most important lines of railways radiating from the capital to the frontiers. The eastern railway from Paris has been opened to Strasbourg on the Rhine, and several sections completed on the Western railroad and on those destined to connect Bordeaux, Marseilles, and Lyons with Paris. The number of additional miles of railway opened to travel and traffic during the year 1852, throughout the whole empire, was 249 miles.

Population. At the end of the seventeenth century the population of France was stated at nearly 20,000,000. In 1791, a census exhibited it at 26,363,600. The progress of population has been as exhibited in the following table:—

Year.	Men.	Women.	Total.	Increase Population.
1801.....	13,311,889	14,037,114	27,349,003	.....
1806.....	14,312,850	14,794,575	29,107,425	1,758,422
1821.....	14,796,775	15,655,100	30,461,875	1,354,450
1831.....	15,930,095	16,619,128	32,669,223	2,107,348
1836.....	16,460,701	17,080,209	33,540,910	971,687
1841.....	16,908,674	17,321,504	34,240,178	699,268
1846.....	17,544,083	17,858,003	35,400,486	1,160,308
1851.....	....	....	35,781,628	381,142

In 1841 the employment of the males, was:—

1st. Working Class.....	7,585,000
2d. Manufacturing, Trading, and Agricultural Capitalists.....	927,000
3d. Learned Professions and independent Incomes.....	425,000
4th. Paid Officials, Army, Navy, and Pensions.....	379,000

Of these, belonging to the first class, 5,591,000 are in a state of ignorance, most of them unable to read and write, and in the fourth class there is also a sad deficiency of knowledge, as out of 1000 recruits, 500 do not know their alphabet. The mean duration of life is 32.6 years; before the first revolution it was stated by Duvillard at 28½ years, proving that a favorable change has taken place in the law of mortality, and that a greater degree of comfort has been enjoyed by the people since that period.

Religion. Three fourths of the French profess the Roman Catholic Religion; all religions, however, are protected. About 1,000,000 belong to the Reformed Church, the majority of whom are in the southern departments. The Jews are met with in the large cities. In Doubs and Vosges there are a few Anabaptists, and a new sect, calling themselves the French Church, has lately appeared: they do not acknowledge the authority of the Pope, and have their liturgy in French.

There are 14 Roman Catholic archiepiscopal provinces, and 66 bishoprics, altogether 80 dioceses. The dioceses are generally co-terminate with the departments, but in several cases a diocese includes two or more of the civil divisions.

The Protestants who adhere to the Confession of Augsburg, or the Lutherans, have a general consistory, the seat of which is Strasbourg, and six inspections. The Reformed Protestants or Calvinists have consistories, of which five form a synod, and churches in fifty-five departments. They have a faculty of theology at Montaubon. The Jews have a central consistory at Paris, and consistorial synagogues at Strasbourg, Colmar, Metz, Nancy, Bordeaux, and Marseilles. Salaries are paid out of the public treasury, and amount to between 3,500,000 to 4,000,000 francs a year. Cardinals have about \$6,600, archbishops \$4,000, and bishops \$3,000 annual salaries. The

Catholic clergy number about 38,000; Lutheran about 400; Calvinists about 350; and Jewish about 100. There are nearly 4000 Convents, containing 24,000 inmates, of whom 18,000 are nuns, devoted to the care of the sick, and the education of children.

Education.—The University of France embraces the whole system of national education, and includes all the educational institutions of the country, from the lowest schools up to the greatest colleges. The supervision is entrusted to a council, and a corps of inspectors, and each commune is obliged by law to support schools for elementary instruction. The number of institutions belonging to the university, was lately as follows: 41 national colleges, with 626 professors, 5,779 internal, and 8,870 external students; 318 communal colleges; 146 institutions; 1,114 boarding-schools; 54 normal schools; and 42,318 primary schools.

The highest rank is that of the "Facultes." There are six "Facultes" of Roman Catholic Theology, and two of Protestant Theology, one Lutheran, and one Calvinistic. There are nine Facultes of law; three of medicine, with 17 secondary schools; eight of science, and six of literature. The facultes of Paris are highly distinguished, and are attended by a large body of students. No student is eligible to the facultes of law, physic, or divinity, until he has received diplomas in science and literature. The classes have thus been enumerated:—

Students in Law	4,640	.. of whom 2,800 at Paris.
“ Theology	500	“ 140 Protestants.
“ Medicine	1,950	“ 1,100 at Paris.
“ Science	2,135	“ 1,300 “
“ Letters	1,900	“ 1,500 “
Total annual average	11,109	
 Primary Schools:—		
for Boys	81,420	
for Girls	10,672	with an aggregate of
Scholars	1,907,000	
Institutions and Boarding-Schools	20,500	
Communal Colleges	29,700	
National Colleges or High Schools	11,000	
Total, receiving Education	1,968,200	
Students of Theology in the Seminaries	13,000	
1,981,200		

Yet it is stated that out of every 1,000 Frenchmen only 405 can read and write.

Army and Navy.—The gradations of military rank are—sub-lieutenant, lieutenant, captain, chief d'escadron, colonel, marechal de camp, lieutenant-general, and marshal of France. Promotion cannot be purchased as in England, and not often obtained by special order:—more than half the promotions take place by seniority. The number of marshals of France, the highest officers in the army, is fixed at eight in time of peace, and may be increased to twelve in time of war. The army in its entirety amounts in general to between 300,000 and 500,000 men; but in time of war every Frenchman is liable to conscription.

Next to Great Britain, France has the most powerful navy in the world. The annexed table will exhibit the number and capacity of each class of vessels in 1845, which comprises the latest returns on this head:—

	IN COMMISSION.		BUILDING.		IN ORDINARY.		TOTAL. Vessels.
	Number.	Guns.	Number.	Guns.	Number.	Guns.	
Ships of the Line.....	17	1,598	25	2,442	4	340	46
Frigates.....	23	1,184	16	810	6	310	45
Corvettes.....	17	444	3	90	6	124	26
Brigs.....	84	464	2	40	21	270	57
Schooners, Cutters, etc.....	87	122	2	12	8	20	47
Transports, etc.....	88	132	10	40	14	56	59
Steam Frigates.....	5	78	2	12	—	—	7
Steam Corvettes.....	3	62	9	54	—	—	17
Steam vessels of small size...	41	209	3	15	—	—	44
Total.....	215	4,298	72	3,515	59	1,120	346

Total guns, when all armed, 8,928; men and boys in service in 1845, 27,554.

For military purposes France is divided into twenty-one provinces, styled military divisions. The chiefs of these are lieutenant-generals, who have under them as many field-m Marshals as there are departments in their respective divisions, and under the command of these officers are placed the troops in each department. The administration revolves on a Corps d'Intendance, and in the capital of each division there is an Intendant, and a sub-intendant in each sub-division.

The maritime regions are divided into five arrondissements, which are again subdivided into quartiers. A maritime prefect, who takes charge of the ports, is stationed in each arrondissement, and supervises the whole coast defence of his district. The ports and naval stations are highly distinguished for their efficiency, and some of the strong-holds are reckoned among the most secure in Europe. The fortifications of Paris and Lyons are instances of such. The whole number of fortified places is 131; of which, 21 are of the first class, 48 of the second, and 52 of the third. The chief naval stations and dock-yards are those of Brest, Toulon, Rochefort, Cherbourg, and L'Orient.

Legion of Honor.—As connected principally, though not exclusively, with the army and navy, we may mention the "Order of the Legion of Honor," which was instituted by Napoleon. The usual title to admission is the discharge of important duties, either civil or military, and in time of war the performance of some act of great bravery. The grades are:—1. Chevaliers, of whom the number is unlimited; 2. Officers, limited by the laws of the order to 2,000; 3. Commanders, limited to 400; 4. Grand Officers, to 160; and 5. Grand Crosses, to 80. These laws, however, have been superseded, and a large number of officers instituted. The order embraces from 50,000 to 60,000 in all. Their reward is the "honor of the thing," and sundry decorations.

Government.—The great events in the recent history of France, and indeed, of Europe, are the revolution of 1848, by which France was transformed into a republic, followed by the revolutions of Dec., 1851, and of Nov., and Dec., 1852, by which Louis Napoleon converted himself, first into a president for life, and then into an emperor. Under the new regime the liberties of France, including the liberty of the press, are totally trodden under foot. Everything depends on the will of the emperor, who finds in the support of the army, of the catholic clergy whom he has labored to conciliate, and in the general terror of revolution, the buttresses of his authority. That authority, however, rests on so precarious a foundation, and the whole system of administration is liable to such sudden changes, that it is hardly worth while to go into details respecting it. It may, however, be observed in general, that the imperial government preserves, and pushes to extremes, that centralizing system first introduced by the Jacobins, perfected by the first Bonaparte, preserved by all the subsequent governments, and which by its operation and tendency, deprives the citizens of all direct share in the management of even local affairs, accustoming them to look for every thing to the guidance and guardianship of the government.

IX. EMPIRE OF RUSSIA.

Extent.—This extensive and powerful empire, far eclipsing in its territorial expansion every other nation of ancient or modern times, comprises the whole northern portion of the eastern hemisphere, from the Gulf of Bothnia and the frontiers of Posen on the west, to the Pacific Ocean and Behring's Straits on the east; and extends thence to the American continent, on which it has also a considerable territory. Within these limits is an area of nearly 8,000,000 square miles, equal to the whole of North America, or about a sixth part of the land of the globe.

EUROPEAN RUSSIA, from the most southerly point of the Crimea to the north coast of Lapland, or the mouth of the White Sea, is 1,720 miles; and from the western border of Poland to the 60th meridian, along the 52d parallel, 1,791 miles. The superficial area is estimated at 2,021,887 square miles, or more than one-half of the whole of Europe.

Surface.—With the exception of a small territory in the north-west, the whole of this extensive country belongs to the great plain which extends through the middle of Europe, from the German Ocean to the Caspian Sea and the Oural Mountains. It is not, however, perfectly level, for there are at least three distinct slopes, down which its waters are carried to the adjoining seas. The main watershed, which is only a few hundred feet in elevation, may be traced from a spur of the Carpathians, near the source of the Dniester, in an irregular north-eastern and eastern course, to the Ourals, near the source of the Petchora. The greatest elevation is in the Valdai Hills, where its highest point is 1,370 feet above the level of the sea. The northern slope, which forms the basin of the White Sea, has a barren soil and a severe climate. The southern slope may be divided into three regions: Central Russia, the Steppes, and the country beyond the Volga.

Central Russia, extending from the Carpathian Mountains and the western limits of Poland to the banks of the Volga, with a breadth of about eleven degrees of latitude, improves progressively towards the south, the southern half being a country of great fertility. Between this fertile region and the Caspian and Black Seas, extend the "Steppes," which are usually divided into the higher and the lower. The former extend westward from the Don, along the Sea of Azov and the Black Sea, including three fourths of the Crimea, cross the Dnieper, and spread westward along its right bank until they meet the outskirts of the fertile regions of Little Russia. Their surface is, in general, not more than 200 ft. above the level of the sea, and throughout is covered with a long coarse grass, which feeds immense droves of horses, but is unsuited for cattle. In the hollows of the rivers, however, and in some other places, cultivation is profitable; and in the Crimea, the whole surface of the Steppes is covered with plants, whose gaudy blossoms fill the air with refreshing fragrance. The lower Steppes extend along the shores of the Caspian, from the Oural to the foot of the Caucasus, with a breadth of 250 or 300 miles. The surface in the mountain districts is covered with a fine sand mixed with shells, entirely denuded of vegetable growths; and the soil is everywhere impregnated with salt, while the lakes which occur in it yield a quantity of that article, in summer, sufficient to supply the greater part of Russia. The country to the east of the Volga is hilly and even mountainous, being traversed by the spurs of the Ourals. The elevated parts are covered with forests, but in the valleys the soil is moderately fertile. The third slope, which inclines to the Baltic, extends from the borders of Prussia to the Gulf of Finland and the lakes Ladoga and Onega, and is in general a country of moderate fertility, interspersed with a number of lakes, and containing some sandy tracts, intermixed with portions of rich soil. The centre of Finmark is an elevated plateau, full of lakes, and covered with low rocky heights. Lapmark is exceedingly barren, but the valleys among the mountains in the southern parts of Finland, contain rich meadows and good arable land. The coasts of Finland are lined with precipices, reefs, and rocky islands; and in some parts of the low-lands, the surface is overspread with enormous blocks of granite.

Geology.—The predominant geological formations are the tertiary and alluvial,—the older formations being less frequent. Primitive and transition rocks, however, occur in the Ourals, Finland, and some other places; and the secondary rocks frequently appear rising, like small islands, in the great plain; and among the formations of this class are

coal, lime, gypsum, chalk, and salt. The tertiary formations occupy vast tracts of low country. The alluvial formations consist of an old and a new deposit; the former composed of a great stratum of marly clay and loam, interspersed with numerous blocks of granite and other primitive rocks. It covers vast tracts of Poland. The soil which it forms in the south of Poland is excellent, but towards the north it becomes gradually less productive, and more mixed with sand, gravel, and large blocks. Vast numbers of these blocks occur in this plain, which are believed to have been transported from Finland by some great flood.

The great mineral riches of the empire are found in the Oural and Altai mountains; those in European Russia are few and unimportant. A tract, however, called the Central Mining District, extends from the Oka to the Kaluga, which is for the most part poor and sandy, but contains iron ore; and as the metal is manufactured in the places where it is found, several extensive iron works have been erected in this region. The works at Petrozavodsk, and near St. Petersburg, are the largest in Europe. Finland yields copper and tin, and coal is found in various places in small quantities. In southern Poland are numerous beds of bituminous coal, sometimes thirty feet thick. In the tertiary districts, deposits of brown coal are met with, which likewise yield amber. Salt mines are found in several districts; but the greatest quantity is procured from the lakes and marshes north of the Caspian Sea. The principal salt works are in the neighborhood of Solikamsk; and the gypsum grottoes of Koungour, in the government of Perm, are large and magnificent. In Poland there are large mines of rock-salt, which form part of that enormous layer of fossil-salt which extends along the Carpathian Mountains, and which is large enough to supply the whole world for an indefinite period. Copper sand is found throughout a large extent of country in the governments of Perm, Vialka, and Ufa, completely skirting the south and west sides of the Ourals. The sand is of a dull-red or green color, and is worked for copper; it contains also fossil wood impregnated with the metal.

It is in the Asiatic territory of Russia, however, that the most abundant mines of copper are found, as well as those of gold, silver, platina, and other metals.

Climate.—The climate of Russia presents a variety proportionate with its extent. Its geographical position indicates extremes both of heat and cold, and the winters are much more severe and the summer more warm than in other parts of Europe in the same latitudes. These general remarks, however, are inapplicable to some localities. In the south the winters are short and the summers long and powerful. The middle region, from 50 deg. to 57 deg., has a rough and long-continued winter, especially towards the east; and at Moscow, latitude 56 deg., the mean temperature of the year is only 40 deg. Fahr., while that of the hottest month rises to 70 deg. In the northern regions, from 57 deg., the climate, though milder than in Asia, is much more severe than in Western Europe. The winter is here long, and violent winds prevail for seven months. The autumn is foggy, and in the coldest months mercury freezes. The duration of winter at St. Petersburg extends from September to May. The seasons and weather, however, depend greatly on the course of the winds and other collateral circumstances. On an average, 230 days are reckoned to belong to winter; and for 160 of these, the waters are fast bound with ice.

Soil, etc.—A broad belt of vegetable soil, in some places from three to five feet deep, extends through central and southern Russia, from Volhynia to the Ourals. This land is so productive as not to require manure, and its fertility is proved by the large returns of grain which it yields, and the excellent breeds of cattle that are raised upon it. Considered generally, the territory between 44 deg. and 50 deg. is, for the most part, low and level, scantily wooded, partly very fruitful and partly barren, and here and there impregnated with salt. The mildest and most fertile region, however, is that succession of valleys along the southern coast of the Crimea, where the vine and garden fruits, of excellent quality, are produced in such abundance, as to form an article of commerce as far as Moscow. Proceeding eastward into the government of Astrakan, only that part of the soil is fertile which extends along the low banks of the Volga, the Oural, and the Terek, in which tracts vegetables attain an enormous size. The soil is here impregnated with saline and bituminous substances. Higher up, the land on the Volga becomes sandy and unproduc-

tive. The soil of Little Russia and the Polish Ukraine is partly sandy and not very productive, and partly very rich and fertile. A great part of Western Russia is also sandy, and is intersected by extensive marshes and bogs. Large tracts of it are likewise covered with forests, while no inconsiderable portion ranks among the most fertile in the empire. The middle region, from 50 deg. to 57 deg., is the wealthiest and most densely peopled portion of Russia; and consists of wide, open, undulating plains, with only slight elevations to break the monotony. The northern region beyond 57 deg. is, with the exception of the mountains of Finland and the declivities of the Ourals, a continuation of the same flat country, upon which forests, meadows, marshes, and moors alternate. The poor, starved soil ensures the husbandman a return only so far as 60 deg., beyond which only slow-growing wood succeeds, and beyond 67 deg., only dry, stunted shrubs.

The Russian forests are of enormous extent, and yield the most important products, supplying in profusion timber, tar, pitch, potash, and turpentine, which form a principal part of the commercial exports, and furnish fuel in a country nearly destitute of coal. Of the entire country, one-fifth is occupied by forests, the same amount by uncultivated lands, waters, and cities, three-tenths by arable, and the remainder by meadow lands. Of the woodland, one-half is covered with pines, firs, and other coniferous trees. Oaks, beech, poplars, and elms are chiefly found south of 52 deg., but the birch grows in more northern regions. These immense forests are a great blessing to so rigorous a climate, as they afford a plentiful fuel, and shelter from the cold piercing winds from the north. The provinces of the south are almost destitute of timber. The trees furnish timber of the finest and most durable quality for building and furniture; and the exportation of timber constitutes no inconsiderable branch of Russian commerce.

Agriculture, etc.—The most common grains are rye and oats; but in southern Russia the best wheat, with millet and rice, are produced. Hemp and flax are also largely cultivated. While corn and cattle constitute the wealth of Central Russia, the south abounds in productions of a more precious and delicate kind. There the vine is indigenous, and its cultivation, especially in the Crimea, has been well attended to; but the wines produced are neither remarkable for their flavor nor quality. Vine cultivation extends over Astrakan, Kherson, Podolia, the country of the Don Cossacks, Taurida, and the Caucasus. The mulberry tree has received the same attention, and with more favorable results. Large plantations have been formed near all the large towns, and every encouragement has been held out by the Government to the growers. Sugar-cane and indigo have also been introduced. There is besides, in southern Russia, a great variety of fruits and vegetables; and in summer the country everywhere presents the most enchanting appearance, and is covered with a profusion of the finest flowers and aromatic herbs. Russia also produces hops, tobacco, and the ordinary garden vegetables of Europe. Spanish pepper is raised on the Volga; the poppy, in Kharkoff; rhubarb grows wild in Taurida; rapontick, in the Ourals; and the polygonum-minus, which grows wild in the Ukraine, engenders worms that yield a beautiful crimson dye. Many plants, useful in dyeing, grow wild; and there are also a number useful in tanning.

Cattle of every kind are bred in vast numbers on the Steppes, and are increasing with the improvement of agriculture. Beeves are reared as far north as 64 deg., but are most abundant in Podolia and the Ukraine. Sheep are raised to a great extent, and the stock is said to number 70,000,000 fleeces. The Merino has been naturalized in Little Russia and the Baltic provinces. Besides supplying wool for the home manufactures, large quantities have lately been exported. Great attention is also paid to the breeding of horses, which thrive upon the Steppes. Shawl-wool goats have been introduced; and besides these, there are camels in Taurida and Kherson; asses in Taurida; swine, buffaloes, etc. In the north, the reindeer, so invaluable to the inhabitants of those sterile regions, is the principal beast of burden. The forests contain vast numbers of wild-bees, which yield abundance of honey and wax for exportation. There are also many wild animals, the skins and furs of which constitute important articles of trade in the northern parts of the empire; and abundance of others whose flesh is used for food.

The agriculture of Russia was, till recently, of the rudest kind; but within the last few years considerable progress has been made in improving it. The annual production of grain, on an average of five years, has been calculated to amount to 134,818,920 Eng-

fish quarters, of which three-ninths were required for ~~used~~, leaving nearly ninety millions of quarters for consumption and exportation.

Manufactures.—Formerly Russia imported only manufactured goods, but she now imports large quantities of raw materials for the use of her manufactures, and strictly prohibits the importation of everything that can compete with them. The distillation of corn-brandy, or whiskey, is still the most extensive and lucrative branch of industry, and produces to the Government annually an excise-duty of ninety millions of roubles; the use of it is universal among the peasantry; who also consume to a great extent a kind of beer called braga. In 1812 the Russian empire numbered 2,332 manufactories, with 119,093 operatives; in 1835, 6,045 manufactories, with 279,673 operatives; in 1839 the former had increased to 6,855, and the latter to 412,931; and since the manufactures have increased to such an extent that they furnish the country with almost sufficient supplies, of which only about one-sixth is imported from foreign countries. The various articles manufactured in 1843 had a value of seventy-six millions of dollars, while those which were imported in the same year, had only the value of thirteen millions. The chief manufacturing district is in and around Moscow, where in the just-named year *cotton goods* were manufactured to the value of 15,000,000, and *silks* to the value of 1,000,000 dollars. Of other articles are to be noticed cloth, canvas, cutleries and hardware, leather, glassware, etc. In 1836, the gold mines did not yield more than 4,580 lbs.; and those of platina only 174 lbs. The quantity of gold, however, obtained in the same year, from private mines, was 4,860 lbs., and of platina 4,248 lbs. During the ten years, 1834–44, the average quantity of gold produced from the Oural mines, and coined, amounted to 40,687 lbs., and of platina, 1,557 lbs. In the five years from 1842 to 1846, the produce of the Oural gold mines has been estimated at \$60,000,000. The product has since increased, amounting in 1851 to twenty millions of dollars. The silver mines yield annually about 43,200 lbs., besides 1,440,000 lbs. of lead. The aggregate amount of copper from the government and private mines is 7,596,000 lbs. The principal iron mines are situated in Finland. The smelting of the ore is performed by eight different furnaces; and nearly the whole of the iron produced is distributed among the forges in different parts of the country. Finland likewise produces copper. Iron of the best quality is also found at Tula, which is a great seat of the iron manufactures of Russia. The salt lake on the Steppes produce immense quantities of salt, to the amount, it is said, of 324,580 tons annually. Alum is produced to the yearly amount of 576,000 lbs.

Fishery.—A prodigious quantity of fish is supplied by the lakes and rivers; and of these the Volga and the Oka are particularly productive. The principal kinds of fish are sturgeon, bieluga, and salmon, besides carp, pike, and trout. The Black Sea likewise produces lampreys and mackerel; and a kind of herring is found both there and in the Sea of Azov. Caviare, the consumption of which is very great in Russia, is made from the roes of the sterlet, a variety of the sturgeon, and from those of the bieluga. A single sterlet yields from ten to thirty pounds weight, and from a single bieluga, there may be taken sometimes as much as 120 lbs. The best caviare is prepared by the Cossacks of the Oural. The nett annual value of the Russian fisheries amounts to more than 7,000,000 dollars. The fisheries of the Caspian and its tributary rivers, are by far the most important. They generally belong to the villages and cities in the Government of Astrakhan, but pay a yearly impost to government. The most extensive fishery, that of the Iemba, extends along the shores of the Caspian, from the mouth of the Oural to the gulf named Mertvoi-Kultuk, a distance of 345 miles. The mode in which the fish are taken is extremely rude and inartificial; and when taken they are placed on rafts, where they are gutted, and the roes, the back-bone, and the sounds or swimming bladders carefully separated. The fish themselves are then carried to huts, where they are salted; the roes are placed in a reservoir, to separate the fatty matter, after which, being pickled and barrelled, they constitute caviare. Sturgeon being a cartilaginous fish, have scarcely any earthy matter in their bones, which are in fact rather a highly elastic flexible gristle; their spines, therefore, being rich in gelatine, are, together with the ligaments and capsules, saved, and constitute what is termed fish cartilage. Lastly, the sounds are dried in the sun and become isinglass. Seals are also found in the Caspian, and from 60,000 to 100,000 are taken annually, for the sake of

their skins and blubber. The fisheries take place every year in the following order:—first, the spring fishery, at the breaking up of the ice, when the greatest quantity of caviare is made; second, the summer fishery, when, from the lowness of the rivers, the fish are returning to the sea; third, the autumn fishery, from September to November, when the sturgeon, of all the species, are ascending the rivers, and seeking deep pools in which to spend the winter. Many of them, however, still remain behind, so that they are fished for in winter also, by nets sunk through holes in the ice. During this season the fishermen proceed several versts from shore on the ice; and it frequently happens that during their fishing an impetuous wind suddenly blows off shore, and drives the ice into the deep sea, where they are inevitably lost, unless the wind change and drive them back again to land.

Commerce.—The commerce of Russia is very considerable, and internal traffic is annually increasing. Nineteen fairs have been established in the principal towns, and thirteen in the smaller ones. A great number of bazaars have likewise been erected. The great centre of the inland trade is at Nishnei-Novgorod, the annual fair at which place is perhaps the largest in the world, and is attended by traders from all parts of European and Asiatic Russia, from Khiva, Bokhara, and Persia, who bring with them the produce of their own country, and carry home in exchange the productions of Western Europe and America. The fair lasts during August and September, and is generally visited by about 150,000 strangers. The annual value of the goods actually sold in 1836, amounted to 24,000,000 dollars. The value of merchandize sold at all the fairs in 1836, amounted to 50,000,000 dollars. With respect to the maritime commerce of Russia, the value of the merchandize imported and exported in 1835 amounted in either case to \$40,000,000. In 1843 the imports were of the value of 56,000,000 dollars, and the exports of the value of 61,000,000. The imports consisted of coffee, spices, wines and liquors, fish, salt, tobacco, fruit, raw cotton, cotton twist, indigo, cochineal, madder, logwood, and other dyewoods, drugs, olive-oil, hardware, lead, raw sugar, silk, cotton, silk and worsted goods, cloths, and precious stones; but the importation of every sort of manufactured or other produce than can compete with the manufactures or natural produce of Russia, is expressly prohibited. The exports consisted of wheat, rye, barley, oats, wax, raw hides, tanned leather, flax, hemp, timber, potash, hemp oil, linseed oil, copper, iron, tallow, linseed, wool, bristles, cordage, sail-cloth, ravens, ducks, flems, cattle, furs, hair, skins, etc. The largest articles of export were tallow, hemp, flax, and linseed. The principal seats of the maritime commerce are, St. Petersburg, Cronstadt, Riga, and Revel, on the Baltic Sea; Archangel and Onega, on the White Sea; Odessa, on the Black Sea. St. Petersburg alone engrosses about one-half of the whole foreign commerce of the empire.

Internal Communications.—The roads throughout Russia are, in general, very bad; in some places they are formed with trunks of trees laid across, and in others they are mere tracts; but of late some good roads have been formed, and particularly the great road from St. Petersburg to Moscow is said to be, without exception, the finest in the world. It has been macadamized throughout, and lined with trees; and at the end of every seven or eight versts there is a station for a corporal and a party of soldiers, whose duty it is to keep it in repair. A magnificent road likewise leads from the capital to Czarskocelo, with marble pyramids to mark the distance in versts, and lighted by nearly 3,000 lanterns. Railroads have also been formed between St. Petersburg and Czarskocelo; and between St. Petersburg and Moscow, with branches to Odessa and other places. But one of the most striking features of the country is the great extent of both natural and artificial communication by water. All the great rivers, lakes, and seas, have been connected by canals; so that there is uninterrupted communication from the Baltic to the Black Sea, the White Sea, and the Caspian. The inland commerce is much facilitated by the snows of winter over which sleighs travel with great facility.

Inhabitants and Population.—Russia, only of late years aggregated into an imperial whole, presents more diversity of races and languages than any other country; but they may all be reduced to the following stocks: 1. the "Slavonic," in which are comprised the Russians, the Poles, the Lithuanians, the Lettons, and the Kures; 2. the Finnish stock, which comprises the Fins, the Carelians, Esthonians, etc. These are found on the

coasts of the Gulf of Finland, and throughout northern Russia; 3. the Turkish stock, which comprises the inhabitants of Kasan and Astrakan, the Turkomans of the Caucasus, the Nogais and other Tartars of the Crimea, the Baschkirs, etc., extending over a large portion of the south-eastern and southern provinces; 4. the German stock, comprising the Germans of Riga, Revel, St. Petersburg, Mitau, etc., and numerous colonies in Saratov and Taurida. Besides all these, there are many English, Scotch, Danes, and other foreigners throughout the country, but chiefly in the commercial towns; Jews, Armenians, Moldavians, Wallachians, Persians, Calmucs, Hindoos, Samoyedes, and Laplanders. Of these various races, the Great Russians, or Muscovites, are the most numerous, comprising nearly three-fifths of the population. They are found chiefly in Central Russia, round Moscow, where the country is densely peopled, and where their numbers are rapidly increasing.

There are no certain data for ascertaining the amount of the population, but it may be set down at about 65,000,000, of which 54,500,000 are in European Russia, exclusive of the Caucasus. Of this number, 35,000,000 may represent the Muscovites; 6,000,000 the Little Russians, Rusniaks, and Cossacks; 6,000,000 the Poles; 1,000,000 the Servians, Bulgarians, etc.; 1,200,000 the Lithuanians; 500,000 the Lettons; 300,000 the Kures, making a total of the Slavonic race of 50,000,000. The Fins and their congeners number about 3,000,000; the Germans 500,000, and the Turks 1,000,000. The proportion of males to females is as 28 to 30. The increase of population in Russia is equal to that of any other portion of Europe.

Classes.—The Russian nation is divided into three classes, the *nobility*, *citizens*, and *peasantry*. About the same distinction is established in Poland, while in the Baltic provinces the social condition of the population bears a strong resemblance to that of Germany. There is an essential distinction between *hereditary* and *personal nobility*. The number of those who belong to the hereditary nobility in the *whole Russian empire* (thus including the Polish, Bulgarian, Tartarian and other nobles), was some years ago about 551,000; while the *personal nobility* (i. e. for life-time only), is conferred upon the higher classes of the clergy and citizens, and upon all the civil and military public officers, provided that they are not already nobles by birth. The *nobles*, as well as the commoners, are exempted from the poll-tax (land-taxes, excises, and other similar taxes they have to pay), and cannot be compelled to enter the army, though a great many of them enter it voluntarily; yet they are required to enter the public service in some line, if not in the military, then in civil.

By the term *citizens* is to be understood all free inhabitants of cities and towns, who are engaged in commerce, trade, manufacturing, and other branches of industry. They are divided into six classes, styled guilds, and are about 4,500,000 in number.

The *peasantry* comprises *freeholders* (about 700,000), *peasants of the crown* (more than 17,500,000), who at present are to be considered as personally free men, and finally, *bondsmen* or serfs, about 21,000,000 in number, and for the most part on the estates of the nobility. Thus two-thirds of the population are free men, and the emperor, Nicholas, has provided by law for the gradual emancipation of the remaining third also.

Serfs.—A Russian proprietor reckons the value of his property, not by its annual income, but by the number of male serfs upon it; but the relation in which the agricultural serf practically stands to his master, is in most respects that of a small tenant; the principal difference being, that he cannot change his employment or move from home, without his master's leave, which is sometimes obtained for a certain annual sum, called *brok*, in lieu of service. As a general rule, he has a house and a portion of land, for which he pays rent in labor instead of money; working three days a week for his master, and having the other three at his own disposal. The serfs are grossly ignorant, and habitually careless and improvident; yet they are contented and happy, and bear about them no signs of oppression; their desires are few and easily satisfied; their fare is coarse and poor, but they seldom suffer from cold or hunger, and they are naturally gay, good humored, and light-hearted. They cannot legally be sold or transferred to another master, except with the whole of their family. A serf once given to the military service is emancipated forever. When his term is out, he does not return into serfdom,

but has the choice of position and occupation, with the obligation to become inscribed in some rural or town community. His wife becomes emancipated likewise. Children begotten before his entering the military service remain serfs, those during it, follow the new condition of the parents. Thus the recruiting becomes an agency of partial emancipation.

The station of domestic servants is much worse than that of the agriculturists. As the riches of the Russian noble consist in the labor of his peasants, it is his study to turn that to good account; the law, besides, requires him to maintain them, and, if they are found begging, he is liable in a fine. He is therefore obliged to keep always a certain number of people, whether they are useful to him or not; and as every kind of out-door labor is at a stand during the winter, he naturally turns to the establishment of some sort of manufactory as a means of employing them, and as a source of profit to himself. And not only are the nobles manufacturers, but they carry on the business in every branch; and their privileges give them great advantages over the other classes who are not allowed to possess serfs. No people in Europe are so plainly or coarsely fed. Their daily fare consists of pickled cucumbers, cabbages, and mushrooms, with a piece of black bread. Fish and butcher-meat they seldom taste.

Education, etc. — All the *civil schools* in the empire are placed under the minister of public instruction. This class is subdivided into: 1. Parish schools, intended for the lower orders; 2. District schools, which have three classes, intended for the children of shop-keepers, and restricted in their course of instruction to the catechism, writing, drawing, the rudiments of grammar, arithmetic, geometry, geography, and history; 3. Gymnasias, authorized to embrace higher studies, but accessible only to the children of the nobility; and, 4. Universities, which consist each of three faculties — philosophy, jurisprudence, and medicine, of which the courses last five years. The University of Dorpat has also a faculty of theology. The universities are those of St. Petersburg, Moscow, Kharkoff, Kasan, White Russia, and Kief. As a part of the general system, the Russian language has been substituted for the Polish in all the schools of Poland. Private schools are likewise placed under the inspection of the local authorities, and can make use of no books but those appointed by Government. The establishment of new private schools is prohibited at Moscow and St. Petersburg, and is allowed in other places only to such foreigners as shall have resided five years in Russia, and have, by naturalization, become Russian subjects. No father has the power of selecting the instructors of his children at his own pleasure; he must take them from among the persons licensed by Government, or furnished with an authority which gives them the character of public functionaries. Education in any foreign country is positively prohibited to all under 18 years of age; and even after that age, it is only the emperor himself who can grant the necessary permission.

The *military schools* chiefly engage the solicitude of the Government; and, accordingly, they increase daily, and absorb the greater part of the funds allotted to national education. Nevertheless, there is no army so poor as the Russian in able officers.

The *ecclesiastical schools*, designed chiefly for the education of the clergy, are divided into three circuits, those of St. Petersburg, Moscow, and Kief. Each circuit is composed of superior schools or academies, of intermediate schools or seminaries, and of lower schools in the smaller districts and parishes. They are under the superintendence of the Holy Synod.

The Press. — In the whole empire, about 70 newspapers or periodicals are published. The press is under a strict censorship, which, in university towns, is entrusted to committees, and everywhere else to censors especially appointed. The censorship of works relating to religion rests with the ecclesiastical bodies. Every book hostile to the creed of the Greek Church, to monarchical autocratic authority, to decency, to morality, to private honor, is prohibited; and the first duty of the censors is "to consider what is the object which the author has proposed to himself in writing his work."

Religion. — The orthodox Greek Church is the dominant religion of the empire; but all other religions are not only tolerated, but even freely professed, difference of creed being no obstacle to the attainment of public employments. The Russians, the Cossacks, Moldavians, Wallachians, and numerous proselytes among the Permians, Voguls, Sa-

moyedes, Laps, and others, belong to the dominant church, which numbers about 45,000,000 members. The Poles, Rusniaks, and Lithuanians, are Roman Catholics, or United Greeks; and the total numbers of that creed are about 3,500,000. The Fins, Esthonians, Swedes, and most of the German settlers, are Lutherans. Calvinism reckons but a small number of Poles and Germans. Islamism is professed by almost the whole of the numerous population of the Turkish or Tartar race, and the Arabs. The Jews, of course, follow the law of Moses. The Calmucks are worshippers of the Lama; and many of the Samoyedes and other nomadic races are idolaters.

Government. — All power emanates from the Czar. The title of *Samoderjetz* (autocrator), which the czar assumes, indicates the nature of his authority, which he is presumed to derive only from God. He is the central point of the administration. His authority is delegated to the great boards or colleges of the empire, which preside over the central administration, and to the governors-general, and other local functionaries. The three great boards of administration are, the *Council of the Empire*, the *Directing Senate*, and the *Holy Synod*. The first is divided into four departments: those of legislation, of war, of civil and religious affairs, and of finances. The ministers and a secretary of the empire form part of this board, which has the charge of all important affairs, with the exception of those relating to foreign policy. The *Directing Senate* is considered as the highest council of state. The czar himself is its president, and he names the senators, whose number is indefinite. This senate superintends the execution of the laws, and the receipt and expenditure of the public money, promulgates the laws and edicts authorized by the czar, appoints to public employments, and judges, as the last resort, in all legal causes. In the *Holy Synod* is vested the supreme authority of the Greco-Russian church. It is composed of a certain number of prelates, named by the emperor, who is himself the sole head of the church, and presents to all ecclesiastical offices. The executive power is confided to ministers and secretaries of state, who form a fourth board, named the *Committee of Ministers*, but which is subordinate to the three great bodies already mentioned. Russia is a monarchy, absolute and hereditary; but the various parts of the empire present considerable differences in their administration, and some of them are governed according to the ancient privileges, which they have preserved, or to the constitution granted to them at the period of their union with the empire. Thus the Cossacks of the Don, and of the Black Sea, form military republics, under a first magistrate, named their *hetman*, who forms the organ of communication with the emperor; but, by various gradual changes, their privileges have been at last almost annihilated, and their territories reduced to the condition of ordinary provinces. Finland also forms a grand-duchy, with a constitution entirely different from that of the other parts of the empire. Livonia, Esthonia, and Courland also enjoy considerable privileges; but still these privileges are held at the will of a despot, who may abrogate them whenever he pleases. Poland now forms an integral part of the empire; though it has a separate administration and particular laws, which cannot be all at once superseded by those of Russia.

Revenue and Debt. — The revenues of the empire arise chiefly from a capitation tax of two roubles on each peasant, and five on each burgher; a tax of $1\frac{1}{2}$ per ct. on the capital of merchants; rents of the crown-lands of peasants, customs, stamps, patents, etc.; the monopoly of spirituous liquors and salt; mines; purchase of exemption from military services; fines on smugglers and other delinquents; the crown fisheries, mills, manufactures, baths; the profits of the mints and the post-office; and the tribute in furs paid by the nomadic races. The total income for 1851 amounted to about 55,000,000 dollars; allowance, however, must be made for large sums never carried to the general account, but either appropriated to local purposes, or paid in kind by various sections of the population. In some districts, also, the capitation tax is commuted for labor or military service. To the sum above stated may also be added the produce of the gold and platinum mines. The imperial debt amounts to \$300,000,000. There is little gold in circulation; the only silver coin is the rouble (75 cents), and its aliquot parts of halves, quarters, tenths, and twentieths. There is a large copper circulation of opecks, one hundred of which are equal to a paper rouble (21 cents); indeed, the only true metallic currency may be said to be the copper.

Army. — According to the official reports for 1852, the armed force was in the follow-

ing state. The Corps of Guards, commanded by the Grand Duke, the heir to the Empire, is established in St. Petersburg, and for a distance of 100 miles around that city. It consists of three Divisions of infantry and one of reserve, of four Divisions of cavalry, a large force of artillery with 120 to 140 cannon, and a special body of field engineers, sappers, and a pontoon corps. Next comes the Corps of the Grenadiers. Its headquarters are in the ancient city of Novgorod, some one hundred miles on the road between Petersburg and Moscow. Its regiments are established principally in the military colonies. This Corps has three Divisions of infantry, and one of cavalry; the park of artillery amounts to between 115 and 120 pieces. After these two separate Corps comes what is called the active army. It is composed of six Corps or nearly twenty Divisions of infantry, six Divisions of regular cavalry, with an irregular one of Cossacks, etc., adjoined in time of war, and at least 700 pieces of artillery. Its headquarters are at Warsaw. It faces the western frontier of Europe exclusively. It is quartered from the Baltic, through Lithuania to the Danube, the Black Sea and the frontiers of the military colony colonies in South Russia. A separate Corps occupies the city of Moscow and several surrounding counties.

The army of the Caucasus is composed of four divisions of infantry, one of regular cavalry, numerous irregular Cossacks of various denominations, a body of Mussulmans and militia from among the natives. A division of infantry occupies Finland, and another is scattered in Siberia. This active army is backed by a reserve composed of 25 brigades of infantry and 270 squadrons of cavalry.

The guard of the interior, formed of armed veterans, performing in the cities and boroughs the internal service, amounts to 50 battalions which, however, are not full. Further, there is a corps of gendarmes, containing 8 brigades, horse and foot, spread over the whole empire. The gendarmes fulfil the duties of the police of the army during war, and of a political police through the country at all times.

The irregular cavalry consists principally of Cossacks. There are several denominations of them, derived mainly from the regions on the banks of the rivers along which they are settled. The Cossacks muster in all 765 squadrons, each containing a few more than 100 men, of which more than a third can be mobilized.

The whole bulk of the armed land force consists of 17 corps, with 4,900 companies of infantry, and 1,469 squadrons of cavalry, and 330 batteries of heavy or light artillery. More than a third of this ought to be deducted as not capable of being moved towards the extreme frontiers of the empire, as well as for incomplete numbers in the various battalions, companies, and squadrons. The remainder makes up the Russian army, which can be moved and directed by the order of a single will according to its whim and pleasure. But natural impossibilities oppose and impede the concentration in one spot and even in one region of such masses of men and animals. For instance, it is impossible to feed them for a prolonged term of time, in either a cultivated or in a savage country.

The Russian navy may be said to be the creation of the present Czar Nicholas. Within the last fifteen or twenty years he has established two large fleets in the gulf of Finland and the Black Sea. Each squadron has a three decker of 100 to 120 guns, and eight smaller two deckers, of from 70 to 90 guns, with six frigates and a very few steamers and other smaller vessels, sloops, schooners, etc. Three squadrons form the fleet of the Baltic, and two that of the Black Sea. Aside from this, there is a small flotilla in the Caspian Sea, and a steamer and few other vessels in the lake of Ural. In the Baltic as well as in the Euxine and the sea of Azoff, there are numerous gun-boats. All the vessels are fully manned, but the quality does not correspond with the quantity. Russia, not having a commercial Marine, has no great number of sailors, or of masters and mates. The latter, in the small number of Russian commercial vessels, are nearly all foreigners, notwithstanding the existence of a law according to which the master of a Russian vessel ought to be a native Russian. But this law is eluded, as there is no possibility whatever, of finding such men. The sailors for the navy are selected principally from among the people living along the shores of the Baltic, the Euxine and the Azoff, and from among the boatmen on the Wolga and on the Don. Greeks and Armenians may be found among the number. All these put together do

not furnish, however, a third part of the required number, and the remainder of the crew is composed of men who, previous to being enlisted, had never been on water, except perhaps in a ferry-boat. A great many Jewish conscripts are thus employed. The mass of the crews are in a season transformed into sailors by mere drill and force. The vessels of the fleets in the Baltic can scarcely be kept 4 months on the high sea, and the Euxine but 4 or 6 weeks longer. This is the whole time which can be devoted to practising naval exercises and manoeuvres. The remainder of the year, the crews are garrisoned in harbors, and trained in the military land exercise. Thus, the greater part of the crews are neither real nor skilful sailors or gunners, but form scarcely second-rate infantry.

The officers are educated from childhood in special nautical establishments, and most of them, at least theoretically, are able and well informed.

The vessels have no uniformity in their construction. Some are as heavy as old Dutch galliots, some are modelled on English and American patterns. The material, which is mostly oak, is bad; not that there is no lumber in Russia, but the navy-yards and arsenals are under the same principle of venality and theft which pervades all other branches of the administration. Thus the vessels last only from 10 to 15 years. In general the Russian Navy is to be regarded as a defensive wooden wall, which can never be transformed into an offensive weapon against Europe, or be made to act single-handed against any of the maritime powers, with the exception of Sweden, Turkey, and the like smaller ones.

X. GERMANIC CONFEDERATION.

History.— Little or nothing is known of Germany anterior to about 100 years before our Christian era. The country was known to the Romans by the name of *Germania*, and its southern and western parts were conquered by them, especially Rhætia, comprising in substance the present Tyrol, Vindelicia, South Bavaria and the south-eastern part of the present kingdom of Wirtemberg, and Noricum, arch-duchy of Austria, Styria, Carinthia, and part of Carniola. The chief German tribes, mentioned by the Romans, were the Cimbrians, whose principal seat was in Jutland, Teutones in Mecklenburg, Chatti, chiefly in Hesse, Cherusks, in the centre of the present kingdom of Hanover and Lippe-Detmold, and Marcomans, in Bohemia. The ancient Germans were ruled by native princes elected out of illustrious families; their leaders in time of war were elected from among the most valiant warriors. They had no cities or towns, but lived in rough huts or cottages scattered about, and in only rather few instances united to a village. Chastity and hospitality were their characteristic virtues. At the period of the foundation of the Frankish kingdom by Clovis, as mentioned in a former article, the most powerful of the German tribes were the following:— 1. The FRIESLANDERS, along the coast of the North Sea, between the Zuyder Zee and the mouth of the Weser. 2. The SAXONS, occupying the whole tract of land between the Rhine and Eider rivers, that comprises at present Westphalia, the principalities of Lippe, the middle and southern parts of Hanover, Brunswick, and Holstein. 3. The FRANKS, consisting of Ripuarian Franks, in the present Rhenish province of Prussia, who, under the reign of their king, Clovis, conquered nearly all Gaul and imparted their name to this country, and of Salic Franks, from whom is derived the name of Franconia, which is still the common name of the northern half of Bavaria, where they had their principal seat. 4. The ALEMANNI, primitively called Suevians, and occupying the whole tract of land, which in a later period formed the Swabian circle. 5. The BAJORIANS, the forefathers of the Bavarians proper, having their principal seat in the southern half of the present kingdom of Bavaria. 6. The THURINGIANS, living in the countries at present consisting of the Saxon grand-duchy and duchies.

All these tribes were subjected partly by Clovis and his Merovingian successors, partly by Charlemagne, and thus incorporated into the great Frankish empire; and not before the year 843, when this empire was divided, by the treaty of Verdum, did Germany be-

come independent. Charlemagne's grandson, Louis II., surnamed *the German*, was its first independent king. When Louis II. died (in 876), the German kingdom was divided among his three sons, of whom the two eldest died successively in 880 and 882,



City and Castle of Heidelberg.

after which the youngest, Charles III., surnamed *the Fat*, attained to power, first in Germany, and then in nearly all other parts of the ancient Frankish empire. Charles the Fat having been dethroned in 887, he was succeeded in Germany by his nephew, the duke of Carinthia, ARNULF (887-899). With his son and successor, Louis II,

(899-911), the German line of the Carolingians became extinct, and henceforth the German empire was an *elective monarchy*.

The weakness of Charlemagne's successors had allowed the most powerful among the vassals, the dukes of Saxony (to whom the Thuringians had for the most part been subjected), of Franconia, Suevia (Swabia), Bavaria, and Lorraine, to make themselves almost independent. However, they finally agreed upon a common sovereign, and first chose the duke of Franconia, who, as CONRAD I., reigned from 911 to 918. After his death, Henry of Saxony, surnamed *the Fowler*, was elected king of Germany. This HENRY I. united in himself all the virtues of a truly great man. He maintained internal peace and order, built a great many regular towns, and put to the rout (in 933, near Merseburg) the Magyars, who until then had nearly every year made plundering and devastating

incursions into Germany. His son and successor, OTTO I. (936-972), was endowed with similar great qualities. In 962 he was crowned in Rome emperor by the pope, and as this example was followed by his successors, the German kings were henceforth commonly styled Roman-German emperors. Otto's next three successors were OTTO II. (972-983), OTTO III. (983-1002), and HENRY II., (1002-1024), with whom the imperial line of the Saxon house became extinct.

CONRAD II. (1024-1039) was now elected, belonging to the ducal house of Franconia, or the Salic Franks, for which reason the emperors of this house were frequently called the Salic emperors. His son and successor, HENRY III. (1039-1056), was the most energetic of all the German emperors. Had he lived longer (for he was only 39 years old when he died in 1056), the popes would never have dared to meddle, as they did, to the greatest prejudice of the political independence of Germany. This was first tried successfully by Pope Gregory VII. during the reign of Henry's son, HENRY IV. (1056-1106), whom he treated in the most humiliating manner. With Henry IV.'s son and successor, HENRY V. (1106-1125), the line of the so-called Salic emperors became extinct.

LOTHARE, (earl of Supplingenburg, in the present duchy of Brunswick), reigned from 1125 to 1137; in which period, originated the long-lasting struggle between the Guelphs and Ghibellines, or between the adherents of the house of Saxony (which duchy, together with that of Bavaria, was under the sway of the Guelphs) and of the house of Hohenstaufen (under whose sway was the duchy of Swabia). Lothare, whose son-in-law was duke of both Saxony and Bavaria, grossly offended his rivals; but after his death these very rivals were elected, first CONRAD III. (1137-1152), then his nephew, FREDERIC I., surnamed *Barbarossa* (1152-1190), and next to him his son HENRY VI. (1190-1197). When the last-named emperor died, his son Frederic was only 3 years old, of which circumstance the Guelphs availed themselves, to elect (in 1198) one of their adherents, Otho (son of Henry, surnamed the Lion, duke of Saxony), while the other party elected Henry's younger brother PHILIP, surnamed *of Swabia* (1198-1208). But the latter was murdered in 1208, after which, OTHO IV. reigned without opposition until the year 1215, when Henry's son, FREDERIC II. (1215-1250), was elected. With Frederic's son and successor, CONRAD IV. (1250-1254), the house of Hohenstaufen became extinct, and now, a period of nearly 20 years ensued, which in German history is known by the name of the Great Interregnum, for not only the law of the sword exercised its barbarous sway uncontrolled throughout Germany, but the number of petty sovereigns increased from year to year, so that at the end of the 13th century it amounted already to almost 150 (duchies, principalities, earldoms, bishoprics, free cities, etc.) Some of the German princes tried to put an end to this anarchy, by electing in succession the earl William of Holland (1256), Richard of Cornwall (1272), and King Alphonso of Castille (who never set a foot on the German ground); but these mock-kings had no authority. Finally, it became evident to all that the continuance of such a state of things would lead to common ruin. Even the pope insisted energetically upon the election of a new sovereign of all Germany; and RODOLPH I. (1273-1291), earl, or count of Hapsburg in Switzerland, was elected. He proved himself worthy of the confidence shown to him, and succeeded in a rather short time to restore tranquillity and order to the country. Ottokar, king of Bohemia and sovereign of nearly all the other present German provinces of Austria, refusing to acknowledge Rodolph as emperor, was declared outlawed, defeated in two decisive battles, and, with the exception of Bohemia and Moravia, deprived of his possession. Carinthia was given in fee to the earl Mainard of Tyrol; but Rodolph invested his own sons, Albert and Rodolph, with Austria (i. e., the present archduchy of Austria), Styria, and Carniola, and thus laid the foundation to the domestic power of the house of HAPSBURG IN AUSTRIA. It was perhaps owing to this somewhat selfish proceeding, that not his eldest son but the earl ADOLPHUS of Nassau (1291-1298) was next elected king and emperor of Germany. However, Rodolph's son did not acquiesce, but took the field against Adolphus, defeated and killed him in a battle at Gellheim (in the present Bavarian Palatinate), and was then recognized as emperor, by the name of ALBERT I. (1298-1308). In the period from his death (in 1308), until towards the middle of the 15th century, princes from different houses mounted the imperial throne. First, HENRY VII. (1308-1313), from the house of Luxemburg; and next to him, LOUIS IV. (1313-1347), surnamed *the Bavarian*, because he belonged to the reigning Bavarian house of Wittelsbach. Then one party elected the Earl GUNTHER of Schwarzburg, while another party elected Henry VII.'s grandson, Charles of Luxemburg. The latter, or CHARLES IV. (1347-1378), got the better of the other, the easier, as Gunther soon died (in 1349). Charles IV. is remarkable as the author of the so-called *Golden Bull*, i. e., a public document concerning the election of the emperor, the rank or dignity of the 7 electors, etc., which was published in 1356. He was succeeded by his eldest son WENCESLAUS (1378-1400), who cared so little for the public welfare, that in 1400 four electors chose the Palatine RUPERT (1400-1410) in his place. Rupert, however, made himself unpopular, likewise; moreover, he had not been generally recognized as emperor; one party elected the margrave Lodocus of Moravia (a cousin of Wenceslaus); another, Wenceslaus's brother Sigismund; and thus there were at one period 3 German kings, or emperors, at once, for Wenceslaus lived until 1419. Finally, SIGISMUND (1410-1437) maintained himself in the possession of the imperial crown. During his reign, the Council at Constance was

held in 1415, and John Huss was burnt there, which gave rise to the War of the Hussites in Bohemia, that lasted from 1419 to 1436. It may be noticed here also, that Sigismund sold the margraviate of Brandenburg (which he had inherited), together with the electoral dignity, to the burgrave Frederic of Hohenzollern, at the price of 400,000 ducats. It was this purchase which laid the foundation of the present kingdom of Prussia. Sigismund died in 1437, and was succeeded by his son-in-law ALBERT II (1437-1439) of Austria; and henceforth only princes of this house, with one single exception, were elected emperors. Albert's successor was his cousin, FREDERIC III, (1439-1493), who was the last-elected German king crowned emperor at Rome. His son MAXIMILIAN I (1493-1519) was the first who proclaimed himself "elected German emperor," which subsequently was the usual title of the sovereigns of the German empire.

During Maximilian's reign, the *Reformation* began. Luther published his ninety-five propositions on the 31st of October, 1517. Most of the public acts of Maximilian's grandson and successor, CHARLES V. (1519-1556), had reference to the Reformation; as, for instance, the diets at Worms, in 1521; Spire, in 1529; Augsburg, in 1530; the so-called Schmalkaldian war, in 1546; the treaty of Passau, in 1552; the treaty of peace, concluded at Augsburg in 1555, by which the religious differences were settled; and the Council at Trent, by which the creed of the Roman Catholic church was finally settled. Charles renounced the Austrian estates, which he had inherited from his grandfather Maximilian, in favor of his younger brother, FERDINAND I. (1556-1564), who at the same time had been elected emperor. Ferdinand was succeeded by his son MAXIMILIAN II. (1564-1576), who, like his father, was noted for his clemency and equity. His son and successor, RODOLPH II. (1576-1612), was a very learned scholar, but unfit for ruling, which also may be said of his brother MATTHIAS (1612-1619), under whose reign the Thirty Years War (1618-1648) originated. It is easy to conceive that an event so important in its consequences as the Reformation had proved to be, must produce a violent fermentation in the minds of the majority of Roman Catholics, and at last lead to a reaction and open hostilities. In the course of time, the mutual exasperation between the Catholics and Protestants had increased to the highest pitch, and both parties waited, as it were, only for a plausible pretext to strike the first blow. This pretext was offered by the Protestants at Prague, who precipitated the imperial governors from the windows of the royal castle, on the 23d of May, 1618. The Bohemians then elected the elector Frederic V. of the Palatinate their king, but were defeated in the battle near Prague, on the 8th of November, 1620, and the war soon extended to all parts of Germany. Meanwhile, the cousin of Matthias, FERDINAND II. (1619-1637), had been elected emperor, and during his reign the principal events of the war took place: the total defeat of king Christian V. of Denmark in the battle of Lutter on the Barenburg, 27th of August, 1626; the taking of Magdeburg by storm, 20th of May, 1631; the battle of Breitenfeld, 7th of September, 1631; the battle of Lützen, 16th of November, 1632, etc. Ferdinand II. was succeeded by his son FERDINAND III. (1637-1657), whose reign is noted for the Westphalian Treaty of peace, concluded on the 24th of October, 1648, at Münster, with reference to the Catholic concerns, and at Osnabruck with reference to the Protestant concerns. By the terms of this treaty, which, down to the commencement of the French Revolution, constituted the public law of Europe, and especially of Germany, the executive power of the emperor was restricted still more than ever before. Ferdinand II. died in 1657, and was succeeded by his son LEOPOLD I. (1657-1705), who was succeeded first by his eldest son JOSEPH I. (1705-1711), and then by a younger son CHARLES VI. (1711-1740), with whom the male line of the house of Hapsburg became extinct. Charles VI. bequeathed all his patrimonial dominions (comprising the present Austrian monarchy, with the exception of the since-acquired Polish provinces and Venetian territories) to his only daughter, the celebrated queen Mary Theresa, who was married to Francis Stephen, duke of Lorraine, whence the house of Hapsburg has since been styled Hapsburg-Lorraine. Claims upon the Austrian dominions were put in by several German princes, above all by Charles Albert, elector of Bavaria, and cousin to Mary Theresa. Yet the latter prevailed both against him and the other pretenders, with the exception of Frederic II. of Prussia, to whom she ceded the greatest part of Silesia. Charles Albert was, however, elected emperor by the name of CHARLES VII.; but he died in 1745, when Mary Theresa's consort was elected

emperor by the name of FRANCIS I. (1745-1765). He was succeeded first by his eldest son JOSEPH II. (1765-1790), and then by a younger son LEOPOLD II. (1790-1792). Leopold's son, FRANCIS II. (1792-1806), was the last German emperor. The German Empire was officially styled the *Holy Roman* or the *Roman-German* Empire. The term 'Roman' had reference to the fact that Charlemagne had been crowned by the Pope as successor to the Roman Emperors, at Rome, a practice continued for many ages, but which came to an end, as we have seen, in 1493. The term 'Holy' rested upon the idea of the emperor being the protector and defender of the holy see and of all Christendom. The STATES OF EMPIRE (Reichstände) consisted of Archbishops, Bishops, Abbots, Provosts, Dukes, Margraves, Princes, Lords, and Imperial Cities, who had the independent government of their own domains. Besides these, there were certain territories belonging to knights, Imperial Villages, etc. Most of these States formed part of those Ten Circles, into which Germany was divided by the emperor Maximilian I., for the purpose of maintaining public peace and order, and executing sentences of the supreme courts of the Empire with armed force, in case of necessity. The Circles were organized in a similar manner as the Empire itself, but had no political power.

The princes of the empire, after the latter half of the 17th century, were seldom or never personally present at the Diet, but were represented there by plenipotentiaries. According to the terms of the constitution, the diet was to be convoked at least every tenth year; but from the year 1663 it was permanent, and held its sessions at Ratisbon (on the Danube and in the present kingdom of Bavaria). The supreme judicial power was vested in two imperial tribunals, viz. the Imperial Chamber (Reichskammergericht) at Wetzlar, and the Imperial Aulic Council (Reichshofrath) in Vienna.

The Diet consisted of three colleges, viz. 1. the Electors; 2. the Princes, of whom ninety-four had each one vote, while thirty-nine prelates and ninety-three counts had collectively six votes; 3. fifty imperial cities, thirteen of the Rhenish and thirty-seven of the Suabian branch. Thus the total number of the German States, which collectively made up the Empire, was not far from 300. But at all times, a few powerful princes overshadowed all the rest. The right and privilege of electing the emperor was exclusively vested in the ELECTORS, i. e., those most powerful states of the empire that had exercised this right from the beginning. Primitively they were only 7 in number (viz. the electors of Mentz, Treves, Cologne, Bohemia, Palatinate, Saxony, and Brandenburg), but in the 17th century two others (of Bavaria and Brunswick-Luneburg) were added to them. The principal elector was the archbishop of Mentz. The election of the emperor took place at Frankfort on the Maine, where subsequently to the year 1564 the emperor was crowned by the archbishop and elector of Mentz. Though the emperor was the nominal sovereign of all Germany, he was in the exercise of his executive power greatly restricted, the real authority resting with the Diet and the local princes.

In consequence of the conquests of the French on the left bank of the Rhine, and the treaty of Luneville in 1801, the German empire underwent many alterations. The archbishops of Treves and Cologne were not only deprived of their territories, but also of their character as actual electors. The elector of Mentz was restricted to his principality of Aschaffenburg on the Maine. All German territories, in fact, on the left bank of the Rhine, were to be ceded to France, and in order to indemnify their princes, the sovereign bishoprics, etc., were secularized and divided.

Notwithstanding these alterations, the German empire retained its ancient forms and organization, until, in 1806, Napoleon induced the majority of the German princes to unite in a confederation, which was styled the Confederation of the Rhine. As by this arrangement the German empire had actually ceased to exist, the emperor, Francis II., on the 6th of August, 1806, proclaimed its formal dissolution.

In 1806 and 1807, Napoleon created the following new states in Germany, viz. 1. the grand-duchy of Berg, which was first given to Murat, Napoleon's brother-in-law, and in 1809 to Napoleon's nephew; it comprised the ancient duchy of Berg, and several parts of Westphalia, and had in 1809 an area of 6,709½ square miles, and a population of 878,157 inhabitants. 2. The grand-duchy of Wurzburg, which in 1806 was given to the former grand-duke of Tuscany, Ferdinand Joseph. It had, in 1808, an area of 1,651 square miles, and a population of 256,331 inhabitants, and consisted of the secularized

sovereign bishopric of Würzburg. 3. The kingdom of Westphalia, in 1807 created and given to Napoleon's brother Jerome. It had then an extent of 14,825 square miles, with 1,912,303 inhabitants, and comprised the greatest part of Hesse-Cassel and Hanover, Brunswick, and many parts of the present Prussian province of Saxony, and district of Minden. Its capital and royal residence was Cassel. 4. The grand-duchy of Frankfort, which comprised, besides the city of this name, the principality of Aschaffenburg and the districts of Hanau and Fulda, and was in 1809 created in favor of the above-mentioned former archbishop and elector of Mentz, Charles Theodore of Dalberg. It had an extent of 1,874 square miles, and a population of 300,000 inhabitants.

After the political events in 1814 and 1815, these new creations disappeared, and the respective territories were restored to their former sovereigns; other sovereigns, who until then had retained their sovereignty, were mediatized,* and, according to the tenor of a treaty concluded at Vienna on the 8th of June, 1815, a union of the several German States reduced to thirty-nine in number, was formed by the name of GERMANIC CONFEDERATION, the object of which was to provide for mutual safety and defence. Each State was independent within itself; but, for general purposes, the whole were to be governed by the Diet, a body composed of plenipotentiaries from the different States, and residing at Frankfort on the Maine. This Diet acts, according to circumstances, either in a committee, or in full session. The Austrian plenipotentiary presides.

In the Committee, Austria, Prussia, Bavaria, Saxony, Hanover, Wurtemberg, Baden, Hesse-Cassel, have one vote; Hesse-Darmstadt and Hesse-Homburg, together, one; Denmark (on account of Holstein and Lauenburg), one; Netherland (on account of Luxemburg and Limburg), one; Saxe-Weimar and the three Saxon duchies, together, one; Mecklenburg-Schwerin and M.-Strelitz, one; Brunswick and Nassau one; Oldenburg, Anhalt, and Schwarzburg, together, one; Hohenzollern, Lichtenstein, Reuss, Schaumburg-Lippe, Lippe-Detmold, and Waldeck, together, one; Lubeck, Hamburg, Bremen, and Frankfort, together, one: total in the Committee, 17. This Committee remains always in session; but its meetings may be adjourned from time to time. When propositions are introduced which the Committee judge of general interest, it has the power of referring them to the Full Assembly (Plenum). The Plenum can act only upon business previously reported and matured by the Committee.

In this Plenum, or Full Session, Austria, Prussia, Saxony, Bavaria, Hanover, Wurtemberg, have four votes each; Baden, Hesse-Cassel, Hesse-Darmstadt, Holstein-Lauenburg, Luxemburg-Limburg, three each; Brunswick, Mecklenburg-Schwerin, Nassau, two each; Saxe-Weimar, Saxe-Coburg-Gotha, Saxe-Meiningen, Saxe-Altenburg, Mecklenburg-Strelitz, Oldenburg, Anhalt-Dessau, Anhalt-Bernburg, Schwarzburg-Sondershausen, Schwarzburg-Rudolstadt, Hohenzollern-Hechingen, Lichtenstein, Hohenzollern-Sigmaringen, Waldeck, Reuss, elder line, Reuss, younger line, Schaumburg-Lippe, Lippe-Detmold, Lubeck, Frankfort, Bremen, Hamburg, Hesse-Homburg, one each; total in the Plenum, 68 votes. But notwithstanding this nominal equality, everything depends on Austria and Prussia.

Since the dissolution of the ancient German empire, there are no supreme courts for all Germany; but the larger States have their own, while the smaller German States have supreme courts in common. Thus the Saxon grand-duchy and duchies, together with the principalities of Reuss, have a supreme court at Jena in common; the duchies and principalities of Anhalt and Schwarzburg at Zerbst; the grand-duchies of Mecklenburg at Rostock; Brunswick and the principalities of Lippe and Waldeck at Wolfen-

* That is, their territories were annexed to larger neighboring States, under whose sovereignty they were placed, though still retaining a certain authority in local affairs. Of the mediatized princes, the most wealthy are: Prince Esterhazy, whose State is now subject to Bavaria, and who derives about \$900,000 a year from three square miles of territory, and less than 900 people; the Prince of Thurn and Taxis (annexed to Bavaria, Wurtemberg, and Hohenzollern), who has a revenue of \$250,000, and the monopoly of post-routes; the Duke of Arenberg (now subject to Hanover and Prussia), who has \$375,000, etc.; and others, to the number of 99, whose former States, on the aggregate, covered only 7,036 square miles, and contained a population of about 980,000; and as these princes still retain the revenues of these States, no less a sum than £1,150,000 sterling, or five millions and a half of dollars, are annually drawn from the German laborer.

üttel, and the four Free Cities (Hamburg, etc.) at Lubeck ; while Liechtenstein appeals to the supreme court at Innsbruck ; Hesse-Homburg, to that of Darmstadt ; and the principalities of Hohenzollern to that of Stuttgart. The strength of the confederal army was, in 1830, fixed at 303,484 men.

Ever since the establishment of the existing system, it has been a favorite idea with the Germans to consolidate all Germany into one great and powerful State. The agitations which began in Europe, in 1848, with the expulsion of Louis Phillipe from France, and the temporary establishment of the French Republic, were soon followed, in Germany, by the meeting of a parliament at Frankfort, having that end in view. But this object was ultimately defeated, no less by the impossibility of reconciling the conflicting claims of Prussia and Austria to the headship of the nation, than by the domineering claims of the Germans to authority over their Slavonic and other conquered neighbors, held in subjection by Prussia and Austria ; and especially by the violent breach between the more ultra and the more conservative sections of the German liberal party. The Frankfort parliament split into factions ; and the king of Prussia, after he had completely bent to the first blast, was enabled to recover his authority and a leading influence in affairs. He wished indeed to be the chief of Germany, but chief in his own way. After the decline of the influence of the Frankfort parliament, he seemed inclined to take the matter into his own hands. German representatives were summoned to Berlin, where the proposition was laid before them to establish a federative German Union, with Prussia at its head. This project miscarried, and a confused series of negotiations took place between the different Powers, none of which led to any definite and permanent organization, and the sole record of which is, that at the close of 1850, there were three German Unions existing upon paper.

In the meantime Austria had recovered from the shock of the Hungarian revolt, and threw herself into the affairs of Germany with a boldness and audacity which disconcerted the more cautious policy of her rival. State after state was detached from the Prussian alliance, and Austria found herself strong enough to demand that the old Frankfort Diet, which had been supposed to be dead and buried, should be recognized as the supreme authority in Germany ; and the representatives of a portion of the States constituted themselves the Diet. Opportunely the Elector of Hesse-Cassel, who had been expelled by his subjects for violating the constitution which he had himself sanctioned, demanded the protection of the Diet. That body thereupon ordered the Austrian and Bavarian contingents to march into the Electorate and reinstate the sovereign. Prussia had committed herself in favor of the subjects, and for a moment seemed disposed to resist with all her force. The national spirit was aroused. Once more the cry for a united and Constitutional Germany was heard. The army was placed on a war footing, and a general war was anticipated, in which the contest between Liberalism and Despotism would be decided. But when the crisis came, the King hesitated and finally yielded. A conference was proposed and agreed to between the Austrian and Prussian ministers, in which it was agreed that the two Powers should undertake, jointly, the pacification of the Electorate, and should send a joint invitation to all the minor German States to hold a conference at Dresden, to consider what further should be done ; the validity of the so-called existing Diet being studiously kept in abeyance.

To understand the proceedings which followed, it must be borne in mind that the Confederation was legally composed of only those territories which had formed part of the Old German Empire. Both Austria and Prussia possessed dominions beyond these limits, but they formed no part of the Confederation. Prussia, with more than 16,000,000 inhabitants, brought but 12,000,000 into the Union ; Austria, with nearly 38,000,000, brought less than 12,000,000 ; while the thirty-three minor States brought in about 18,000,000. The majority of these minor States were disposed to favor Prussia rather than Austria ; but Bavaria, the third Power of the Confederacy, with a population of 4,500,000, while forming the natural point of union for the smaller States against either Austria or Prussia, was disposed to favor the former of these Powers rather than the latter, when opposed to each other. The main question in debate was as to the composition of the executive authority of the proposed new Confederation. At one time it seemed that Austria and Prussia had agreed in a scheme which would deprive the smaller States of

any effective voice. This was so vehemently opposed that it was abandoned ; and at last the minor States, with the secret concurrence of Prussia, demanded a complete return to the Constitution of the old Diet. Prussia, however, was unwilling to abandon all the ground she had gained during the two stormy years. By the old Constitution, the Presidency of the Diet was vested in the Austrian Plenipotentiary. Prussia now demanded the right of sharing that honor. Austria replied by a counter demand that staggered her opponent. This was no less than the admission of all her non-German territories into the Union ; thus at once trebling her power, and giving her an undisputed preponderance. Prussia could hardly object to this with consistency, for she had silently introduced her non-German possessions into the body. Though these were small compared with those of Austria, the principle was yielded that the Confederacy was not necessarily to be confined to German States.

Prussia and the minor States united in opposing this demand. England and France also protested against it. They assumed the right to do this, on the ground that all the Powers of Europe were parties in the original formation of the German Confederation, in 1815 ; and that the balance of power would be disturbed by such an enormous accession to that Confederation. Russia also united in this view, and declared against the project of Austria.

All attempts at a new organization failed ; and at last it was determined, by common consent, but on the demand of Prussia, that the old Federal Diet, thrown overboard in 1848, recognized in 1850 by Austria and her allies, but not by those who took part with Prussia, should be solemnly reinstated on precisely the old grounds. This amounted, in effect, to the determination to ignore the entire proceedings of the three eventful years which had just passed. The Dresden Conference was closed, and the Frankfort Diet was opened on the 30th of May, 1851.

The Diet no sooner met than it found great difficulty in bringing affairs back to the precise state which existed previous to 1848. The greater portion of the secondary princes had granted Constitutions more or less liberal to their subjects. Reformatory measures had been commenced in Prussia. Austria, herself, was nominally a constitutional empire. These liberal concessions in the smaller States, were mainly founded upon the declaration of fundamental rights (*Grundrechte*), put forth by the Frankfort Parliament, in Sept. 1848. The Diet determined to strike a blow at the whole of these Constitutions, by declaring the nullity of these *Grundrechte*. This it did on the 23d of August, 1851, by a resolution which declared them of no binding force ; and called on those States in which any measures had been founded on these *Grundrechte*, to abolish them forthwith, in as far as they did not accord with the laws and objects of the Confederation. In consequence of this, the greater portion of the minor princes proceeded at once to abrogate the liberal Constitutions which they had previously granted.

Austria now renewed in the Diet the attempt to introduce her non-German territories into the Confederation. The English Cabinet presented a remonstrance against the measure, as violating the fundamental laws of Europe, and disturbing the balance of power. This claim of the right of foreign interference was met by a declaration of the Diet, that " This attempt against the sovereign power of the Confederation, is rejected unanimously, with the exception of two votes." But though Prussia joined in this vote, she could not but fear the execution of the designs of Austria ; and at last, on the 3d of October, 1851, she proposed to withdraw her own non-Germanic provinces from the Confederation. This was acceded to ; and Austria seeing the determined attitude of opposition taken by the European Powers, gladly embraced this action as a pretext for withdrawing her cherished proposition, at least until a more favorable conjuncture offers.

Thus at last the political condition of Germany, so far at least as that condition depends on written forms, has returned back again to precisely the same point at which it stood previous to the agitations of 1848, and indeed to the position of 1815.

Customs-Union. — Yet though disappointed in their aspirations for a political union and greater political freedom, the Germans have nevertheless made great advances towards social union and freedom of internal trade and intercourse.

Among the numerous disadvantages of the cumbrous organization of the Confederation, none were so early and severely felt as its restrictions upon commerce. Each State was

dependent within itself, and each established its own tariff and line of custom-houses, — each endeavoring to gain a revenue at the expense of the industry of its neighbor. Prussia was the first to perceive the disadvantage of this policy, and as early as 1818, entered into arrangements for mutual free trade between herself and one or two of the neighboring States. By this arrangement, duties should be levied only on the common frontier, and the avails be shared between the States in proportion to the population of parties. The advantages of this soon became apparent, and State after State joined this Customs-Union, until it finally embraced almost the whole Confederation, with the exception of Austria. This is the *Zollverein* or Customs-Union, which now comprehends a population of about 30,000,000. The term for which this treaty was originally concluded was to expire at the close of the year 1853. Besides the *Zollverein*, yet another union consists of the kingdom of Hanover and a few petty principalities in its neighborhood, numbering in all something less than 2,000,000 of inhabitants, and known as the *Steuerverein* or Duties-Union. In September, 1851, Prussia, acting somewhat informally in the name of the *Zollverein*, concluded a treaty with Hanover, by which the two Customs-Unions were to be united at the beginning of the year 1854, such modifications being in the meanwhile made as should be deemed advisable.

The objects of this association are: 1. The establishment of a uniform system of weights and measures. 2. A uniform coinage. 3. Uniform commercial regulations, as regards the intercourse of the States composing the league, with other nations; a power being conferred on the Senate, which regulates the affairs of the Union, of making treaties with foreign Powers, binding upon the whole Confederation. 4. Uniform duties of export, import, and transit. The frontier States levy the duties agreed upon by the Council of the league, on merchandize coming from abroad, and the receipts are divided among all of them in proportion to their population. The frontier once passed, there is no further interruption from custom-houses.

The advantages derived from this system promise to be greatly increased by a treaty lately entered into between Austria and Prussia, by which a certain freedom and reciprocity of trade has been established between the countries embraced in the Customs-Union and the whole extent of the Austrian empire.

Railroads. — Another great step towards the social union of the Germans is the establishment of railroads, by which that country is already traversed in various directions, and connected on the one hand with Belgium and France, and on the other with Poland, Russia, and Italy.

A statistical work published in Germany, and complete to the close of 1852, gives the following figures upon the railroads there. The German league is about five miles. There were, at the close of the year, and for the most part open to the public: —

In Austria.....	247 leagues.
In Prussia.....	507
In Bavaria..	144
In Saxony.....	53
In Hanover.....	101
In Wurttemberg.....	41
In Baden.....	42
In the Duchies and Principalities.....	112

or a total of 1,432 German leagues or 7,000 miles: 5,700 miles are in running order; the rest are not completed; 4,350 miles are administered by the various Governments; 1,650 by private companies.

Surface. — The southern and central parts of Germany are traversed by ranges of mountains in every direction, separated only by narrow valleys, while to the north the elevation subsides into a wide sandy plain, little above the sea-level. The Tyrol is wholly occupied by branches of the Alps, presenting many of the peculiarities of Switzerland. To the north of these mountain districts, the Danube extends almost across the whole length of the country, declining from 2,000 feet elevation at its source, to 530 feet where it enters Hungary. The Hercynian and Bohemian mountains form the northern boundary of

the Danubian Valley; and, though inferior in height to the Alps, form a series of high valleys and table-lands, which fill up the central portions, and, in their eastern prolongation, form the singular valley of Bohemia, which presents the appearance of having been a lake before it was drained by bursting its mountain barriers. Northward of these the country sinks into plains, the length of which extends, without interruption, through Silesia, Lusatia, Brandenburg, Pomerania, Mecklenburg, Holstein, Hanover, and the lower part of Westphalia, where it assumes the appearance of a vast heath or morass; an appearance, indeed, which it exhibits in other places. The great rivers—the Oder, the Elbe, the Weser, and the Rhine, with their tributaries, drain this extensive region. To the west of the Elbe, scarcely a tree appears, but the level tracts are covered with heath and juniper. To the east the country is more sandy, and covered with pines, interspersed, however, with extensive plats of fertile soil. The plain of Saxony, of which Leipsig is the centre, is more elevated, and has a more fruitful soil. Middle Germany is much diversified by picturesque scenery, and abounds with verdant and well wooded valleys, which are watered by clear streams. The banks of the Meyn, the Funda, and the Moselle, are remarkable for their varied scenery, and the valley of the Rhine unites the grandeur of a fine landscape with the appearance of a highly fertile country. In the elevated plains of Bavaria the soil is more cold, but generally productive. In the Austrian territories, the plains are confined by the Alps; but are equally fertile, while the valleys are as deep, and sometimes as narrow as those of Switzerland.

Rivers.—Within the confederate territory, there are 60 navigable rivers. The DANUBE rises in the Black Forest, and takes hence a course due east, receiving numerous tributaries, and passes into Hungary at Presburg, near which place it receives the drainage of Moravia through the March. The DRAVE and SAVER also rise in southern Germany; and the ADIGE which flows south, has its sources in the Rhetian Alps. The ELBE rises from numerous affluents on the north side of the Bohemian mountains, and drains the valley of Bohemia. After escaping through the Sudetic mountains, it flows over the plains of northern Germany to the Ocean. The WESER and its large affluents pursue a similar course. The ODER drains the north-east, and reaches the sea in a little stream, 20 miles below Stettin. The RHINE, in the west, rises in Switzerland, and on leaving that territory shoots in a northern direction, receiving in its course the Meyn and the Moselle, and passes into Holland, and ultimately finds the sea through several channels. These are all magnificent rivers, and give to the country commercial advantages which it otherwise could not enjoy. The minor rivers are too numerous to name, and they are less important. The lakes of Germany are all small; and, except the Lake of Constance, on the border of Switzerland, useless.

Geology.—The geology of Germany is extremely varied in its several parts. South of the Rhetian Alps the rocks are of primary formation, and form rugged and fantastic masses, which at a distance look like castles in ruins. This formation overlies porphyry. The Alps of Salzburg, which extend to the Danube, are composed of granitic and primitive rocks. Their tops are lost in the clouds. To the west of the lower course of the Enns are found fine marbles and rock-salt; to the east, mines of silver, lead, iron, and coal. Upon the right bank of the Danube, the low plains are covered with alluvium and detrital matter. Upon the adjoining slopes of the Carpathian and Sudetic mountains there are isolated basins of coal formation. In Silesia the alluvial plains abound in a black clay. The constitution of the Bohemian mountains is essentially different in several respects; and small-grained granite, micaceous rocks, slate, schist, and sienite, form the Bohmewald. Forests occupy their tops, and their bases are covered with pools and marshes. Some of the mountains are of volcanic origin, and contain freestone and basalt, surrounded with limestone full of fossil shells. The porphyries of the Erzgebirge have undergone some violent upheaving. Many mineral springs issue from these hills, all from their character indicating igneous action. Near Eger is the Kammerberg, a conical mountain covered with lava and scorise. The substructure, however, of the Erzgebirge is granitic, and its mineral wealth, particularly on the Saxon side, is of such importance, as to have given the chain the name it bears, which means 'metaliferous mountains.' In the valley of the Danube extend vast tracts of the epoch of the Paris Basin, and large deposits of extinct animals are found in the alluvial soils. The granitic rocks of the Black

forest support, in some places, limestone of the secondary period; the spurs which extend to the north are composed of old sandstone; the slopes that overlook the Rhine are formed of soil posterior to the chalk, and the flanks of the whole chain are covered with thick forests.

To the north of the Meyn, the hills are composed of primitive limestone; to the east and west, of volcanic deposits; which form, on the one side, the chain of the Vogelberg and Westerwald, and on the other the basaltic group of Eifel. The constitution of the formations now entirely changes; and, to the north and west, all the plains which descend to the North Sea are covered with immense beds of sedimentary deposits, or with beds of sand overlying chalk, limestone, gypsum, etc., which mix, at last, along the shores of the Baltic, with the sandy and marshy soils of Pomerania. The great plain has every appearance of having been, at no very distant epoch, covered by the sea; and, in many places, its surface still consists of bare sand.

The mines of Germany are as various as they are rich in products; and are wrought with much skill and economy. Precious stones are found in many places; rock-crystal, emethysts, and topazes, are plentiful in Bavaria; chalcedony, agate, petchstein, and porcelain-jasper, in Bohemia; barytes in many parts, and abundance of building-stone and clays everywhere. Fossil coal is found in extensive beds. Gold is procured by washing,—though only in small quantities, in Salzburg in Bohemia, in the Rammelsberg, and in Silesia. Silver and cinnabar are raised in the mines of the Erzgebirge in Saxony. Iron, copper, tin, lead, calamine, bismuth, cobalt, nickel, titanium, arsenic, and almost every other mineral, are more or less abundant. In consequence of this abundance, mineralogy has become a branch of a liberal education.

Mineral springs, in every variety, are scattered over Germany. The Thermal Springs of Aix-la-Chapelle, Pyrmont, Carlsbad, Baden, etc., on the Rhine, attract crowds of visitors. Those of Ischel-Baden, near Vienna, and many more, though less frequented, are in no wise inferior. The acidulous springs of Selters, Driburg, and Robitsch; the bitter waters of Seidschutz, Seidlitz, etc.; and the long series of salt springs which follow the base of the northern Alps, attest the richness of the under-strata in metallic deposits.

Climate.—The extent of Germany, no less than its various elevations, naturally produce great variations in climate. On the northern plains the temperature is not cold, but the atmosphere is humid and inconstant. They are exposed to the fogs and the tempests from two seas. Central Germany enjoys a more clear and equable climate. The mountains form a barrier against the effects of the oceanic influences; but the elevation renders the air colder than a climate of latitude alone would indicate. The climate, however, of this region, is finer than any other in Germany; and is the most salubrious and agreeable of any in Europe. The Alpine regions of the south comprise every variety of climate, in accordance with elevation and protection. The air is generally raw and cold in the exposed elevations, while in the plains and valleys a climate equal to that of the finest parts of Italy, is enjoyed.

Soil.—The soil of Germany is generally productive. The plains of the north, indeed, contain much waste land; but along the rivers there are rich and fertile soils, where the most abundant crops are raised. There is, also, in the mountain country south, much barren land; but the beautiful valleys and small plains among the hills rival the fertility of the best alluvial soils of the north. In general the soil of the north is heavy, and in the south light; the former is best adapted for corn, and the latter for the vine. The best soils are found in the middle districts, between the mountains of the south and the northern plain. In Bohemia, Silesia, Franconia, Saxony, and on the Rhine, the proportion of good soil is much greater than in the north or south.

Vegetable Products.—Forest trees hold a first rank in the vegetable products of Germany, and not only supply the wants of the people, but afford timber for export. The oak abounds most in the central regions. The other trees are beech, ash, mountain-ash, poplar, pine, and fir; and, in sheltered spots, walnut, chestnut, almond, and peach trees thrive luxuriantly. The coniferous trees are most common in the sandy plains watered by the Oder and the Elbe; but we look in vain for the hard pine and the lofty fir of Scandinavia. To these forests succeed vast wastes, covered with heath; and the remaining part of northern Germany consists of extensive meadows. In the little hills, however,

of eastern Holstein, of maritime Mecklenburg, and of Rugen, the vegetation is different, and the oak reappears on a more fruitful soil.

In the south, vegetation is governed by the topographical character of the country. The beech and maple grow so high as 5,500 feet, and the pinus-umbra still higher. The birch is a common tree on the declivities. In Austria, the transition from eternal snow to the region of vineyards and olive groves, is remarkably rapid. The culture of the vine ceases at the height of 2,000 feet; that of wheat, at 4,000; and, at a greater height, the country is generally covered with pasturage and coniferous trees.

Every species of grain is cultivated; but some localities are preferable for the several crops. Wheat and barley are most common in the south; maize, in Austria; buckwheat, in the sandy soils of the north; and manna, or "festuca fluitans," is cultivated on the banks of the Oder. The potato is grown extensively in the north, and few countries are so plentifully supplied with excellent roots. The culture of garden vegetables has been carried to a great degree of perfection. Hops find a genial soil; and tobacco (of an inferior description, however) is largely grown. Madder and dyer's weld are partially cultivated. Hemp and lint are staple growths, and furnish material for domestic manufactures.

Vines were originally planted by the Romans along the river bottoms, where they still produce wines as highly esteemed as those of any other country. The most valued is the "Hock," from the vineyards of Hockheim, where the best is made. The next in value are the wines of the Meyn, and the Danube; and those of the Tyrol and of the Moselle. The Bohemian wines are inferior. The secondary wines are used by the people as a common beverage; and such only as are suitable for preservation are exported. Of olive oil, neither the quantity nor quality is important; the production being confined to a small district in the south. Great quantities of rape seed and linseed oils are expressed; and for the more common purposes, the oil of herrings, seals, and other aquatic animals is very abundant.

Domestic Animals.—The German heavy horse is well adapted for draught and warlike purposes, but is not at all suitable for pleasure. There are various breeds of cattle. The handsomest are those of the maritime provinces. The Hungarian and Swiss breeds prevail in different parts. The mixture, however, of these, is the best for the dairy. Attempts have long been made to improve the German stock, but with little success. The German sheep is a mixture of the original coarse-woolled race and a breed from the Ardennes. In part of Illyria they have the sheep of Padua, and the fine-woolled sheep of Spain have been largely introduced. Goats are common, especially in the hilly States, and swine are the most important stock in Bavaria, Hanover, Westphalia, etc. Bee-rearing, in Lusatia, is a productive employment. The seas which wash the shores are prolific in fish, and the domestic fisheries give a living to a great number of the people.

Origin.—The inhabitants of Germany are of three essentially different families: the Deutsch, the Slavonic, and the Latin. The Deutsch, in several families, inhabit more than four-fifths of the country; and the Slavonic, comprising the "Tchekkes" of Bohemia, the "Slowaques" of Moravia and Silesia, the "Annaques" and other tribes in Moravia, the "Polonais" of Silesia, the "Cassoubes" of northern Pomerania, etc., comprise very nearly the other fifth. The Latin family is confined to the Italian portions of the Tyrol, Friuli, and Trieste, and the left bank of the Rhine, and some few other places. Besides all these, there are some 300,000 Jews.

Languages.—The pervading language is the Deutsch, and this is the legal language of the country. The High and Low Germans speak languages somewhat different, but are very similar in habits, character, and disposition. The Low German, or as it is called, the Platt Deutsch, prevails among the people of Lower Saxony, Westphalia, Holstein, etc.; but as the church services and education are conducted in High Deutsch, that language is known as well, though not preferred, as their own dialect. In the south, where High Deutsch alone is spoken, the peasantry use a dialect scarcely more intelligible to those unaccustomed to its use, than the Low Deutsch. The Slavonic people are found to the east of the Danube; they retain their Slavonic dialects, but with a great mixture of German words. The Slavonians are inferior in civilization, but industrious, and much attached to their homes.

Religion.—Catholicism, Lutherism, and Calvinism, are equally the religions of Germany, and enjoy, in all the States, perfect freedom of worship. For several years past, however, the two latter have been united under the denomination of the Evangelical Church. About one-half of the population is Catholic, about two-fifths belong to the Evangelical Church, and the remainder is divided by the Calvinists, Moravians, Menonites, Jews, etc.

Agriculture.—Up to the present date, the greater part of the lands of Germany have been held by feudal tenures. The possessors of the soil, of whom in every State the sovereign is by far the greatest, have under them a species of customary tenants called subjects (*Unterthäner*), who have the cultivation of the common fields divided into small portions, without the intervention of fences. As soon as the corn is removed from the field, the lord has the right of pasture; and owing to these circumstances it is impossible to deviate from an ancient practice, by which the different portions of the common land must be devoted to different kinds of crops at specific periods. The rotation almost universally followed and known as the three-crop culture, consists of a fallow, succeeded by two crops of grain. The fallow, however, generally bears a crop, which is usually either flax, peas, or potatoes; and in consequence of this, the land is never properly cleared of weeds. To this fallow crop succeeds winter corn, either wheat or rye; in the north, the proportion of the latter to the former is as four to one, and in many parts, especially in Bavaria, ten to one. In the southern States, the two kinds of grain are nearly equally cultivated. To the winter-corn succeeds barley or oats, as the land is better adapted to the one or the other, or as may have been settled *between the ancestors of the present lords and their tenants in remote periods*. By this mode of cultivation the earth yields but a small increase. The tenants can keep but little live stock, and therefore make but little manure. The live stock they do keep is usually fed, in winter, on straw, and the addition, recently, of potatoes with a small portion of corn, and what dung they do produce is of a very weak quality. These tenants are commonly holders of small portions of land, which in many instances is necessarily divided, at their decease, among all their children; and thus the evil of the cottage-system of small farms is clearly experienced. The villages are crowded with little proprietors, who have not either the conventional or the pecuniary power to improve the soil; who live in a state inferior to laborers, and who, from the smallness of their farms, can only obtain subsistence by living on the cheapest diet, which of late, as in Ireland, is principally potatoes. Under this system, the number of husbandmen increases rapidly; they form soldiers, and when called out by the military conscriptions of their provinces, are placed in a better situation than when living on their farms.

The only well-cultivated farms in Germany are those kept in hand by the great lords, who, from their large stocks of cattle, make manure sufficient to enrich their soils. Otherwise the farms of Germany, although the soil possesses a rare fecundity, are badly managed, and yield comparatively little—not more than five-eighths the crops of England, or half the crops of the western United States. From the poorer classes eating nothing but rye or potatoes, and from having three-fourths of its population employed in agriculture, Germany is enabled to export corn in most years; but when an unpropitious season occurs, the distress is dreadful, and is increased by the smallness of the States and the difficulty of transit from one to the other, an evil which was lamentably felt in 1817 and in 1847.

The land of Germany produces little beyond the national consumption, except wines, flax, and wool. The quality of the German wines is much inferior to those of France, and the quantity much less. The annual product is stated at two millions of pipes, of 100 gallons each; but a very small part of this finds a foreign market. Flax frequently forming, as before stated, the fallow crop, is important from the employment it affords, during the long cold nights of winter, to the female members of the peasant's family, and from the trade it creates in the export of yarn and linen cloth. Wool is generally the property of the lord; and its annual clip is frequently the principal revenue derived from extensive possessions. This has induced many to pay great attention to improvement of the staple; and much of it, especially that from Saxony, is superior to the merino of Spain. It is within the last twenty years that the extension of the breed of the fine-woolled sheep has taken place.

Manufactures, etc. — As a manufacturing country, Germany is pre-eminent, and can supply itself with by far the greater part of all the commodities it needs. Every town, of moderate population, has its woollen, linen, cotton, silk, and iron work-shops. Few of these, however, are conducted on a large scale; and consequently, that minute division of labor, which is so essential to perfection and cheapness of articles, is entirely wanting. Linens are the most valuable products; and are made, from the coarse fabrics of Westphalia, which are used for negro-clothing, to the finest shirting and table-linen of Silesia and Saxony. Woollens of all kinds are made, and sufficient for consumption. The cassimeres and Vigonia cloths of the Prussian provinces of the Rhine, are preferred in all markets. The cotton manufactures have increased; but not so rapidly as those of other staples. The most considerable districts for these kinds of goods are: Saxony, the Prussian provinces of Juliers, Berg, and Cleves; and along the banks of the Ens, in the Austrian dominions. The chief silk establishments are in Vienna, at Roveredo in the Tyrol, at Cologne, and at Berlin. Leather, iron, and steel, and wares prepared from them, are made at home. Porcelain and common earthen ware are well made; but the best comes from the royal factories of Berlin and Dresden. The glass-ware of Bohemia, though inferior, is that in common use, not only throughout Germany, but in many other parts of the world. Paper is an article very inferior in quality, but it is largely manufactured. In the preparation of chemicals, the Germans are excellent. The minor manufactures are too various to indicate. They consist principally of musical, mathematical, surgical, and optical instruments; with watches and clocks, wooden toys, and plaited straw, in all of which a peculiar superiority is discernible. Most of the trades of Germany are fettered by the laws of the guilds, to which the masters have hitherto been obliged to belong; and this has acted as an impediment to their arriving at that perfection the genius of the people is capable of. These sorts of restraints, however, are not likely to last much longer.

Books. — Besides these branches of industry, we may notice also the immense produce of the press, so important in Saxony, Hanover, Wurtemberg, and Bavaria, where very small towns rival, in this respect, some of the largest cities in Europe, London and Paris excepted. Of these, Leipzig, Munich, Stuttgart, Gotha, Weimar, Carlsruhe, Freyburg, Jena, Dresden, Göttingen, Hanover, Cassel, Frankfort on the Maine, Augsburg, and Hamburg are the most distinguished.

Commerce. — In commerce, Germany is surpassed by Great Britain, France, and Russia; nevertheless, it is carried on to a great extent, especially by Hamburg, Bremen, and Trieste, and next to them, by Altona, Lubeck, Stettin, Stralsund, Rostock, Wismar, Kiel, and Emden. The chief exports are: grain, timber, wool, linen, hard ware, lead, zinc, quicksilver, glass, salt, wollen and cotton goods, horses, cattle, and butter (the latter, especially, from Holstein and Mecklenburg). The inland trade is very considerable; and the principal cities and towns engaged in it are: Vienna, Leipsic, Cologne, Elberfeld, Magdeburg, Berlin, Breslau, Prague, Augsburg, Frankfort on the Maine, Frankfort on the Oder, Botzen, Laibach, etc.

Education. — The Literary Institutions in Germany are both numerous and celebrated. The universities, all on a large scale, and comprising the four faculties of theology, jurisprudence, medicine, and philosophy (including astronomy, etc.) are so excellently arranged, and answer the purpose so well, that they are much resorted to, even from other countries. At present, there are twenty-three Universities on this scale in Germany, viz.: —

Five in the German provinces of Austria: at Prague (founded in 1348), Vienna (in 1365), Olmutz (in 1581), Gratz (in 1486), and Innsbruck (in 1672). Five in the German provinces of Prussia: at Greifswald (founded in 1456), Halle (in 1694), Breslau (in 1702), Berlin (in 1810), and Bonn (in 1818). Three in Bavaria: at Wurtzburg (founded in 1403), Erlangen (in 1743), and Munich (in 1826). Two in Baden: at Heidelberg (founded in 1386), and Freiburg (in 1457). One in Saxony: at Leipsic (founded in 1409). One in Mecklenburg: at Rostock (founded in 1419). One in Wurtemberg: at Tubingen (founded in 1477). One in Hesse-Cassel: at Marburg (founded in 1527). One in Saxe-Weimar: at Jena (founded in 1557). One in Hesse-Darmstadt: at Gießen (founded in 1607). One in Holstein: at Kiel (founded in 1665). One in Hanover: at Göttingen (founded in 1737).

Towards the end of last century there were, moreover, universities at Erfurt, Wittenberg, Frankfort on the Oder, Helmstädt, Rinteln, Duisburg, Altdorf, and in eighteen other places; which, however, since have been abolished, or united with others.

The Public Libraries are likewise on a large scale; and while there are about fifty of them which contain more than 25,000 volumes each, there are nearly as many that contain above 100,000 volumes. Munich has the largest, which contains 600,000 volumes, and another with 160,000 volumes; the royal library, at Berlin, numbers 500,000; the imperial, at Vienna, 350,000 volumes. Besides these, there are public libraries at Dresden with 220,000, Göttingen with 300,000, Hamburg with 200,000, Stuttgart with 200,000, Wolfenbüttel with 190,000, Prague with 130,000, Weimar with 120,000, Darmstadt, Frankfort, Breslau with 200,000 volumes, etc.

Munich, Vienna, Berlin, Dresden, and Göttingen may, in some regard, be considered as central points of sciences and arts, not only with regard to Germany, but also to other countries. Highly distinguished are the Picture Galleries in Dresden, Vienna, München, and Berlin (that of Dusseldorf is, since the year 1806, removed to Munich); the Cabinets of Natural Curiosities in Vienna, Prague, Munich, Berlin, Göttingen, and Hamburg; and the Observatories in Berlin, Vienna, Göttingen, Munich, Prague, and near Gotha.

No country can rival Germany in the *general diffusion of knowledge*; and common-school education is the more widely extended as parents are forced, by the law, to send their children to school, or at least to give evidence of having, in a suitable manner, provided for their education. The children of the poor enjoy, of course, the benefits of instruction free from expenses. The total number of children, frequenting the common schools in Germany, amounts to more than 6,000,000. The common public schools in the kingdom of Saxony, for instance, were in 1840 frequented by 303,506 children; and those of Prussia, in 1843, frequented by 2,328,146 children; and as, in 1840, the total population of Saxony was 1,709,880, and that of Prussia, in 1843, was 15,471,765 inhabitants, it is impossible to imagine, with regard to common-school education, a more just ratio between school-children and adults (inclusive of infants) than this, which is one to five or six. About 15,500,000 Prussian dollars are, in Germany, annually bestowed upon this branch of school education; and the 927 teachers, in the common public schools of Saxony, for instance (where, as in other German countries, most of these schools are in the villages of the peasantry), receive a salary of, respectively, 120, 150, 200, 300, 400, 500, 600, and 700 Prussian dollars; which, there, is equal to as many American dollars. But while they thus are placed in a situation more or less free from cares for sustenance, they are not allowed to occupy any teachership without having previously been carefully instructed in the so-called School Seminaries, and given evidence of solid knowledge, in a rigorous examination. That with these arrangements scarcely any, above six years old, are to be found throughout Germany, who cannot read, and but very few who cannot write, is not to be wondered at. Some years ago there were, among 122,897 men of the standing Prussian army, only *two* soldiers who could not write, and these were not Germans, but Poles from the province of Posen. The total number of Lyceæ in Germany amounts to nearly 100; of Gymnasias, to more than 400; of so-called Latin Schools, to about 800; and of School Seminaries, to nearly 1,100.*

* *Universities* have, in Germany, Holland, Sweden, Denmark, etc., the signification of High-Schools, where all branches of science are taught; and which, for this purpose, unite the four faculties of theology, jurisprudence, medicine, and philosophy (including astronomy and the higher branches of mathematics, history, etc.). *Lyceums* and *Gymnasiums* are those higher schools, where all branches of preparatory knowledge, necessary for those who frequent the universities, are taught (for instance, the Latin, Greek, and Hebrew, mathematics, &c.). Their pupils are (at least in most of the countries of continental Europe) not boarders, but frequent the Lyceums and Gymnasiums only at certain hours of the day, and then go home again. *Seminaries* have in Europe, almost everywhere, the signification of Preparatory Schools for future teachers. *Pro-gymnasiums* are schools where, beside the elements of knowledge, the Latin is taught, and which, for this reason, are as frequently called *Latin schools*.

TABULAR VIEW OF THE GERMAN STATES.

NAME OF THE STATE.	GEOGRAPHICAL SITUATION.	CAPITAL.	AREA IN SQ. MILES.	POPULATION.
1. German provinces of AUSTRIA, ...	The S. E. part, ...	Vienna,	76,147	12,700,000
2. German provinces of PRUSSIA, ...	Comprising N. E. and N. W. part, ...	Berlin,	71,696	12,230,000
3. Kingdom of BAVARIA, ...	Central, between Austria and Wurtemberg, ...	Munich,	29,708	4,450,000
4. Kingdom of WURTEMBERG, ...	Central, between Bavaria and Baden, ...	Stuttgart,	7,651	1,750,000
5. Grand-duchy of BADEN, ...	Central, along the right bank of the Rhine, ...	Carlsruhe,	5,932	1,379,000
6. & 7. Principalities of HOHENZOLLERN, ..	Central, surrounded by Wurtemberg and Baden,	{ Sigmaringen, Hechingen, }	458	66,100
8. Principality of LICHTENSTEIN, ...	Central, between Tyrol and Switzerland, ...	Lichtenstein	53	6,400
9. Grand-duchy of HESSE, ...	Central, on the Rhine and Maine, ...	Darmstadt,	8,269	845,000
10. Landgraviate of HESSE, ...	Central, near Frankfurt on the Maine, ...	Homburg,	198	26,000
11. Duchy of NASSAU, ...	At the junction of the Rhine and Maine, ...	Wiesbaden,	1,780	420,000
12. Netherlands LUXEMBURG and LEMBURG,	S. W. extremity, ...		1,395	282,000
13. Electorate of Hesse, ...	Between Weser and Maine rivers, ...	Cassel,	4,452	750,000
14. Principality of WALDECK, ...	Between Hesse-Cassel and Westphalia, ...	Corbach,	458	62,000
15. Kingdom of SAXONY, ...	Between Austria and Prussia, ...	Dresden,	5,793	1,802,000
16. Grand-duchy of SAXE-WEIMAR, ...	In the centre, ...	Weimar,	1,427	254,000
17. Duchy of SAXE-MEININGEN, ...	Between Saxe-Weimar and Bavaria, ...	Meiningen,	980	157,000
18. Duchy of SAXE-COBURG, ...	Near Saxe-Weimar and Bavaria, ...	Coburg,	788	144,000
19. Duchy of SAXE-ALTENBERG, ...	At the western frontier of Saxony, ...	Altenburg,	522	127,500
20. & 21. Principalities of REUSS, ...	At the N. E. frontier of Bavaria, ...	{ Greiz, Schleiz, }	596	108,800
22. & 23. Principalities of SCHWARZBURG, ..	In the vicinity of Saxe-Weimar, ...	{ Sondershausen, Rudolstadt, }	660	126,000
24. & 25. Duchies of ANHALT, ...	On the Elbe, surrounded by Prussia, ...	{ Dessau, Bernburg, }	1,022	158,000
26. Grand-duchy of MECKLENBURG-SCHWERIN,	Between the Elbe and the Baltic, ...	Schwerin,	4,856	515,000
27. Grand-duchy of MECKLENBURG-STRELITZ,	At the eastern frontier of M.-Schwerin, ...	New Strelitz,	1,107	96,000
28. Duchies of HOLSTEIN and LAUENBURG,	Between the North and Baltic seas, ...		8,738	524,000
29. Grand-duchy of OLDENBURG, ...	On the North Sea, ...	Oldenburg,	2,471	274,000
30. Principality of LIPPE-DETMOLD, ...	Between Hanover and Westphalia, ...	Detmold,	447	108,000
31. Principality of SCHAUMBURG-LIPPE, ...	On the Weser river, ...	Bückeburg,	170	30,000
32. Kingdom of HANOVER, ...	On the North Sea, Weser and Elbe rivers, ..	Hanover,	14,808	1,790,000
33. Duchy of BRUNSWICK, ...	Between Hanover and Prussia, ...	Brunswick,	1,533	270,000
34. Free city of HAMBURG, ...	Towards the mouth of the Elbe, ...	Hamburg,	149	169,000
35. Free city of LUBECK, ...	On the Baltic Sea, ...	Lubeck,	160	53,000
36. Free city of BREMEN, ...	Towards the mouth of the Weser, ...	Bremen,	106½	76,000
37. Free city of FRANKFORT, ...	On the Maine river, ...	Frankfort,	42½	68,000
Totals, ...			244,976	42,600,000

XL THE EMPIRE OF AUSTRIA.



The Bridge of Sighs, Venice.

Extent, etc. — Of this great empire, situated almost in the centre of Europe, the territory forms a very compact mass, embracing a great diversity of soil and climate, and containing a heterogeneous assemblage of tribes and nations, which differ from each other in language, manners, laws, religion, and degrees of civilization. Its greatest length is 860 miles, and its greatest breadth, exclusive of Dalmatia, about 492 miles; the area of the whole being estimated at 257,368 square miles. The frontier line, which is mostly marked by natural boundaries, extends upwards of 4,250 miles, of which less than 80 miles is sea-coast.

Civil Divisions. — The Austrian empire comprises six kingdoms, viz. Hungary, with Slavonia and Croatia; Bohemia, Galicia, and Lombardy and Venice; the Principality of Transylvania; the Duchy of Styria; the Margraviate of Moravia; and the County of Tyrol. The city of Cracow also forms a portion of the empire, having been seized upon by the Emperor, in 1846, with the consent of the protecting powers. For administrative purposes, they are arranged, exclusive of Cracow, into 15 great provinces, the general statistics of which are exhibited in the annexed Table: —

PROVINCES.	Total Area in sq. miles.	Area within Germany.	Area without Germany.	Total Population.	Population within Germany.	Population without Germany.	No. in sq. m.
LOWER AUSTRIA	7,663	7,663	.....	1,409,626	1,409,626	.....	244
UPPER AUSTRIA	7,416	7,416	.....	857,568	857,568	.....	153
TYROL	11,003	11,003	.....	839,755	839,755	.....	101
STYRIA	8,687	8,687	.....	975,309	975,309	.....	149
CARNIOLA & CARINTHIA	7,884	7,884	.....	759,541	759,541	.....	127
ILLYRIAN COAST	3,096	956	2,140	481,189	151,520	330,569	204
BOHEMIA	20,245	20,245	.....	4,174,168	4,174,168	.....	273
MORAVIA AND SILESIA ..	10,268	10,268	.....	2,166,638	2,166,638	.....	220
GALICIA	33,566	1,857	31,709	4,797,243	350,000	4,447,243	188
HUNGARY	89,095	.....	89,095	12,096,202	.....	12,096,202	180
TRANSYLVANIA	21,426	.....	21,426	2,079,000	.....	2,079,000	129
MILITARY FRONTIER...	15,213	.....	15,213	1,203,605	.....	1,203,605	105
DALMATIA	5,076	.....	5,076	394,028	.....	394,028	103
LOMBARDY	8,396	.....	8,396	2,547,976	.....	2,547,976	403
VENICE	9,154	.....	9,154	2,168,553	.....	2,168,553	314
Total	258,188	75,979	192,209	36,950,401	11,684,125	25,267,176	189

Surface.—It may generally be said that in the western section of the empire, high mountains, and in the eastern section level plains, prevail; with the exception, however, of a level plain in Lombardy, and mountain-ranges in Transylvania.

The chief mountain-ranges within the limits of the Austrian empire are: eastern branches of the Alps; the Carpathian Mountains, the Böhmerwald, Erzgebirge, and part of the Sudetic Mountains.

Rivers.—The chief rivers and tributaries are: the Danube (with the Inn, Ens, March, Traisen, Waag, Neitra, Gran, Theiss, Leitha, Raab, Drave and Save); the Elbe (with the Moldau and Eger); the Po (with the Adda, Oglio, Mincio, Tagliamento, Piave and Brenta); the Adige, and the sources of the Vistula.

Climate.—The countries in the north, including Bohemia, Moravia, Galicia, etc., have a climate resembling that of the north of France; and the agricultural products are very similar. The middle region comprehends Upper and Lower Austria, Hungary, Transylvania, etc.; and has a milder climate, and in many parts vines and maize are cultivated. In Lombardy and Venice, and the Illyrian coast, the winters are short, and the soil productive of the finest of fruits, oil, and wine. It is proper to add, however, that the influence of altitude is nowhere so apparent as in the several regions of the Austrian empire. The extensive tracts adjacent to the Carpathians, and the lofty barriers between Bohemia and Moravia, partake of all the rigor of the north; while Galicia and the interior of Bohemia, though lying north of these, are considerably warmer. The average fall of rain is much greater in the mountains than on the plains. In Vienna and the low-lying tracts, 28 inches are a frequent average; but in the mountains, the average often amounts to 40 inches and upwards. More than a third of the productive soil of the empire is said to be occupied by forests.

Soil and Products.—The soil is generally very fertile, especially most of the plains in Hungary and Sclavonia. Yet not only the most fertile, but at the same time best cultivated districts of the empire, are the valley of the Danube, in the Austrian arch-duchy, and the plain along the Po, in Lombardy and Venice. Bohemia, Moravia, and Galicia, are likewise favored with a fertile soil. The extensive heaths of Ketskemet and Debreczin in Hungary, are sterile wastes.

Of the total area above stated, 218,431 square miles are computed to be arable land, distributed as follows: 82,090 square miles, appropriated to grain; 3,855 square miles to vine culture; 234 square miles to rice culture (in Lombardy); 25,816 square miles, consisting of meadows and gardens; and 27,945 square miles of common pastures; the remainder being covered with forests, the most extensive in Europe next to those of Russia.

In 1842, the whole empire had an aggregate number of more than 14,000,000 head of

ack cattle (the most valuable breed is reared in the districts of the Alps, in the German provinces in general, and in Hungary and Galicia); about 2,800,000 horses (the finest breed, in Hungary, Transylvania, and the northern German provinces); nearly 34,000 oxen (reared in Lombardy and Venice, and in Dalmatia); 32,000,000 sheep (three-fifths of them of improved breed); and 5,345,000 hogs (especially in Hungary). The produce of the silk-worm (for which Lombardy and Venice, the southern part of Tyrol, Istria, etc., are noted) amounted, in 1841, to about 4,000,000 pounds of raw silk.

Minerals. — The mining products, in 1841, had a value of 26,058,802 florins (more than \$9,827,000), and consisted of: gold (from Transylvania and Hungary proper), silver, from Hungary proper, Bohemia, Transylvania, etc.), quicksilver (2,973 quintals, chiefly from the mines of Istria), tin (877 quintals, from Bohemia), copper (49,157 quintals, chiefly from Hungary), lead (72,028 quintals, from Carinthia, Carniola, Hungary, etc.), zinc (4,060 quintals, from Hungary and Tyrol), iron, of every description (2,649,632 quintals, chiefly from Styria, but also from Illyria, Hungary, Bohemia, etc.), and coal (9,353,939 quintals, chiefly from Bohemia, but also in Moravia, Lower Austria, etc.). Austria abounds in salt, of every description; and in 1841 the rock-salt mines in Galicia, Transylvania, Hungary proper, Upper Austria, and Styria, produced 3,031,079 quintals; the salt-springs (in Upper Austria, Salzburg, Galicia, etc.), 2,011,616 quintals; and in the seaports, 733,942 quintals of salt were made.

Manufactures. — Manufactures have, in the last and present centuries, received considerable extension in the Austrian dominions, but are still on a comparatively low footing, when compared with those of England and the United States: being conducted in small factories, the requisite division of labor so necessary to perfection, is altogether wanting. Woollens, linens, hardware, and of late years cottons, are made in almost every village. Weaving, and other sedentary work, is performed in the cottages, as formerly among the farm-women of New-England. Linens are woven in every province of the empire; but the finest are made in Lower Austria, Moravia, and Bohemia. As to hardware, the mines supply an ample store of material; the manufacture of which is done partly on the spot, and partly in the larger towns. Bohemia is remarkable for its glass works. Hides, from the vast plains of Hungary and Transylvania, are an article of export. Linen paper is made extensively, and of very fine quality, in consequence of the cheapness of the raw material. As a manufacturing nation, Austria has one great advantage—the cheapness of labor; but its obstacles are great, especially as regards the cotton manufacture, in its distance from the raw material, which, whether landed at Hamburg or Trieste, must be conveyed by land. The inferiority of the machinery is also great. The general system of roads, however, is very complete; and since the introduction of railroads, the facilities of trade have been greatly increased.

Commerce. — The following statement of the commerce of Austria, which includes traffic by land and sea for a series of years, is derived from official documents:—

<i>Years.</i>	<i>Import for consumption.</i>	<i>Export of own products.</i>
1831.....	£6,880,945.....	£7,949,083
1835.....	9,144,532.....	8,890,322
1840.....	11,118,688.....	10,850,870
1841.....	10,588,930.....	11,232,034
1842.....	11,065,775.....	10,855,907
1843.....	11,142,085.....	10,411,395
1844.....	11,448,500.....	10,961,800

The Austrian mercantile navy is confined to the Adriatic ports, and is of very modern date. It is now, however, very respectable, and the laws for the regulation of the merchant service excellent. The greater number of vessels, probably two-thirds, belong to Trieste; the remainder to Venice, Fiume, Ragusa, and the Bocche de Catero. During the year 1841, 25,146 vessels, of 847,000 tons, entered the ports of Austria. In 1844, 29,094 vessels, of 1,005,000 tons arrived. The duty on goods, imported into Austria, averages 9½ per cent, varying from 3 to 50 per cent. The contraband trade is very active on the frontier, and is said to amount to at least £2,000,000 per annum.

Finances. — It has not been usual for the government to publish officially any state-

ment of the financial condition of the country; but it is generally understood among the bankers and capitalists of Vienna, that the revenue amounts annually to about 130,000,000 florins, or \$65,000,000; and the expenditure, exclusive of the war department, to about 87,500,000 florins; of which 40,000,000 pays the interest on the national debt, 44,000,000 the charges for civil government, and 3,500,000 the civil list of the imperial family. The total of the national debt bearing interest is about 650,000,000 florins. The income is derived from direct and indirect taxes, monopolies, domains, and Hungarian revenue. The expenses of the military department is annually more than 60,000,000 florins.

Army.—The peace establishment amounts to 272,204 men, viz. cavalry, 44,970; infantry, 196,377; and artillery, including engineers, sappers and miners, artificers, post-poners and train, 30,877. Every male, between the ages of 19 and 29 years, is subject to do duty in the line; and those above the latter age, and not 50, are liable to serve in the Landwehr or militia. None but the nobility and clergy are exempted. The Military Frontier is protected by troops raised by the great land-owners and free cities of the province; about 30,000 men are constantly in the service. Otherwise, the whole empire is divided into twelve military provinces, nearly coterminous with the civil divisions. The great military schools of the empire are those of Vienna, Wiener-Neustadt, Waitzen in Hungary, Olmutz, Gratz, Milan, etc. There is a veterinary school at Vienna, and an academy for educating gun-smiths at Steyer, in Upper Austria.

Navy.—The Austrian navy is small. In 1839, the number of vessels in ordinary and in service, were as annexed; nor has there since been much change.

	<i>Ships of the Line.</i>	<i>Frigates.</i>	<i>Sloops.</i>	<i>Brigs.</i>	<i>Schooners.</i>	<i>Total.</i>
In Ordinary.....	8.....	5.....	2.....	1.....	—.....	16
In Commission.....	—.....	3.....	2.....	5.....	7.....	17
Total.....	8.....	8.....	4.....	6.....	7.....	33

and a number of minor vessels. Venice is the chief naval station. The seamen are chiefly Venetians, Istrians, and Dalmatians: the number on service, in 1839, was 2,326; besides a regiment of marine artillery of 945 men, and a battalion of marines of 1,276 men.

Inhabitants.—The inhabitants of the Austrian empire may be arranged under five classes: viz. I. *Slavonians*, comprising more than half the whole population, and subdivided into several distinct races, as the Tschekkes of Bohemia; the Slowacks of Moravia and Hungary; the Poles of Galicia; the Rusniaks of Galicia and Hungary; the Wendes of Styria, Carniola, Carinthia, etc. II. *Deutsch* or Germans, who occupy Austria, and are thinly scattered over the whole empire. III. *Latins*, in the Italian kingdoms, including also the Wallachians, who form the greater portion in the Bukowine, and are very numerous in Transylvania, Hungary, and the Military Frontier. IV. *Magyars*, who are the dominant races in Hungary and Transylvania. V. Beside the above, there are a great number of *Jews* in the west, and Zingaries or Gipsies, Armenians and Greeks in the east. The average annual increase of population in the empire is about 1.193 per cent., thus appearing to double itself in 51½ years. The populations of the above races may be thus stated: Slavonians, 18,500; Germans, 6,000,000; Italians, 5,300,000; Wallachians, 900,000; Magyars, 4,500,000; Armenians, Albanians, Gypsies, etc., 150,000; and Jews, 667,139.

Religion.—The Roman Catholic is the dominant religion, but the Greek Church prevails in the eastern provinces. Calvinism is also professed by many in Hungary and Transylvania; and, in the latter, some Unitarians or Socinians are to be found. Menonites, Jews, and other sectaries are to be met with throughout the empire. The Roman Catholics number 25,704,119; Greeks, 6,529,300; Protestants, 3,536,849; Jews, 667,139; all others, 48,022. Every sort of occupations and official places are open to all without respect to creed. The emperor is, in all but the name, head of the church, and Popery is very limited in its influence; and since the virtual suppression of the monasteries, by Joseph II., the regular clergy have been subject to the secular. The church services are now read in the vernacular, except the mass. There are eleven Roman Catholic archbishops,

the Greek (united) archbishop, one Greek (schismatic) archbishop, and one Armenian archbishop. The Catholic Church has, besides, 59 bishops with chapters and consistories, and 43 abbots of richly endowed monasteries in Austria, Styria, Bohemia, Illyria, and Moravia. In Hungary there are 22 endowed abbots, 114 titular abbots, 41 endowed and 29 titular prebendaries, and 23 college foundations. Transylvania has three titular abbots and 150 monasteries and convents, and Galicia 70 monasteries. The Greek United Church has one archbishop and one bishop in Galicia, and five bishops in Hungary. The Armenian Catholic Church has an archbishop at Lemberg. The Greek Church has an archbishop, with ten bishops and sixty deacons. The Lutherans are under ten, and the Calvinists under nine superintendents or bishops. The Unitarians have one superintendent for 164 parishes. The great principle which pervades the whole ecclesiastical government of the empire, is the supremacy of the civil power over the persons, the property, the beneficiary appointments, and even the spiritual functions of the clergy of all denominations. Every person promulgating a papal bull, edict, or ordinance, without the previous sanction of the crown, is subject to confiscation of property and imprisonment; and no Austrian subject can be excommunicated by any ecclesiastical authority, or even by the Pope himself, without the emperor's consent. Patronage belongs partly to the crown, and partly to the bishops, corporations, and private individuals. A strict surveillance is laid over the conduct of the ministers; and in cases of irreclaimable immorality, the offenders are removed to a kind of monastic penitentiary, and kept on short allowance for a given period, or for life.

Education. — The system of primary and elementary schools, in all the Austrian States, is nearly uniform. In the German portion, the schools are more numerous and efficient than in Hungary and the more remote parts of the empire. In the lowest grade of schools, — the “*Volks-Schulen*,” instruction is confined to reading, writing, and accounts. Above these are the “*Gymnasias*,” or high schools, for the classics and mathematics, and commercial academies in the towns; and “*Universities*,” of which there are nine, viz.: at Prague, Vienna, Padua, Pavia, Lemberg, Gratz, Olmutz, Innsbruck, and Pesth. The clergy have the general supervision of all schools; and the whole are regulated with a view to strict uniformity of system, and to their connection with some one or more of the religious professions recognized by the State. At the head of the department is the Hof-Studien-Commission, at Vienna — a board of lay commissioners, which is in constant communication with the religious consistories; and which examines and reports on every point connected with instruction, profane or sacred, civil or military, but has no legislative power or authority of any kind. The principle of instruction which pervades all the schools, is not of the most beneficent kind: the tendency of the system is to check the expansion of the mental powers, by confining the attention of the scholars to a prescribed outline of verbal tuition; and the result is, that the pupils leave school with a very small amount of actual knowledge; but having been imbued with the doctrines and opinions which are sanctioned by the government, they are found to be ready instruments in carrying into effect its most obnoxious measures. In spite, however, of the prejudices imbibed with their early instruction, the Austrians are far from being that bigoted and slavish race *a priori* deduction would suggest.

History and Government. — The heterogeneous elements of which the Austrian empire is composed, have always tended to lessen its strength and its weight in European affairs. There has been, especially of late, a disposition in the various nationalities (which burst forth with great force after the French revolution of 1848) to extend or reassert their ancient liberties, and even their independence of the Austrian crown. To counteract this spirit, the imperial government was induced to make concessions, in the shape of constitutions granted to the empire; but since the suppression of the Bohemian, Italian, and Hungarian revolts, these constitutions have been recalled, and the authority of the emperor has become more despotic than ever. The policy at present seems to be, to suppress all local privileges in those parts of the empire in which traces of them had remained, and to reduce all ranks, orders, and races to one common level of equal obedience and complete subordination. The general result of the recent convulsions appears to have been to improve the condition of the serfs, who compose so large a part of the laboring population in all the eastern provinces, while the nobles have suffered a corre-

sponding depression of the power of the crown has been increased. The government, meanwhile, takes pains to conciliate the monied and active citizen class by opening railroads and affording fresh facilities and encouragement to trade and manufactures. As in Bussia, so in Austria, the wealthy nobles are largely concerned in manufacturing operations.

XII. THE KINGDOM OF PRUSSIA.

Extent. — The kingdom of Prussia (in German, *Preussen*) consists of *two distinct territories*, situated about forty miles apart, and separated from each other by Hanover and Hesse-Cassel.

The *eastern* and larger section extends from the Russian frontier and the Baltic towards the centre of Germany; while the *western* territory extends from the banks of the Weser across the Rhine, towards the French frontier.

For administrative purposes the kingdom is divided into eight provinces, which are again divided into twenty-five “*regierungsbezirke*,” or governments, subdivided into 328 circles. The names, extent, etc., of the provinces, are exhibited in the following Table:—

EASTERN PORTION.

<i>Provinces.</i>	<i>Governments.</i>	<i>Area in sq. miles.</i>
BRANDENBURG.....	Potsdam with Berlin, and Frankfurt.....	15,533
POMERANIA	Stettin, Köslin, and Stralsund	12,207
SAXONY	Magdeburg, Merseburg, and Erfurt	15,701
SILESIA	Breslau, Oppeln, and Liegnitz	7,789
POSEN	Posen and Bromberg	11,401
PRUSSIA	Königsberg, Gumbinnem, Dantzig, and Marienwerden.....	25,033

WESTERN PORTION.

WESTPHALIA	Munster, Minden, and Arnberg ...	7,819
CLEVES-BERG, or the Rhenish Provinces. }	Köln or Cologne, Dusseldorf, Coblenz, Trier or Treves, Aachen or Aix-la-Chapelle, ...	10,372
Total		107,855

Surface and Soil. — The western portion extends along both sides of the Lower Rhine; the eastern portion comprises a part of that vast plain which extends from the North Sea to the Ural Mountains. There are, however, considerable inequalities in the soil and surface. The greater part of the soil is sandy, generally level, and often covered with heaths; and there are many sandy plains, which, on account of the expense it would entail to bring them into cultivation, must forever lie profitless to agriculture. East Prussia abounds with lakes and morasses, and nearly one-fourth of the whole surface of the country is still covered by forests. Only certain portions near the rivers and other peculiar situations, can be considered as fertile, or even tolerable soils. The most productive corn land is in the vicinity of Tilsit; and some other parts of East Prussia, and the greater part of Posen, are also productive. The whole central portion of West Prussia, along the Vistula, is an excellent corn country. Silesia, to the east of the Oder, forms a large, slightly undulating plain; but the western portion is more unequal, and rises, towards the south-west, into high mountains. It contains also several extensive meadows and marshes. In Brandenburg the land is low and sandy, frequently inundated, and a great many marshes and small lakes are formed in the neighborhood of the rivers. This province is well wooded, and some districts are celebrated for the quantity and quality of their grain. Pomerania is mostly formed of lands gained from the sea, and of alluvial deposits; a great part is covered with forests and heaths, and it is only the banks of rivers and lakes that admit of profitable cultivation. In Saxony, Magdeburg, and Thuringia, the soil is favorable for all kinds of grain; and these provinces may be considered as the granaries of the kingdom. The western provinces are far less fertile than the eastern part of the kingdom. Westphalia has little productive soil, and the Rhenish districts are only tolerably fertile.

Rivers, Lakes, and Canals.—The rivers which run through Prussia, from the highlands of Central Europe to the North Sea and Baltic, form so many valuable outlets of commerce. The Niemen, the Vistula, and the Oder, the latter of which is wholly within Prussia, are the largest and most important. The Elbe and the Rhine also pass through Prussia, but debouch from other States. In many parts the rivers have been joined together by canals, so as to furnish a more complete means of transportation from place to place, and a more direct communication with the ocean. The number of lakes is said to exceed 1,000; but few are more than from 10 to 20 miles in length. These occur chiefly in East and West Prussia, and Brandenburg. Many, however, have been embanked, and the land reclaimed. They supply vast quantities of fish.

Climate.—The climate is generally temperate and healthy; but many natural causes except localities from this statement. On the borders of the Baltic the winters are severely cold, and the weather changeable, raw, and foggy. The interior is milder and less variable. Silesia suffers much from rainy autumns and snowy winters; and, owing to the dense forests and elevation of the ground, the southern districts are exposed to long and severe winters. The Westphalian and Rhenish provinces partake of the general climate of that part of Germany in which they are situated. Varying but little from the peculiarities of Germany, indeed, Western Prussia may be said to have the same vegetables and animals with other parts of that confederation.

Agriculture.—The productive industry of Prussia is generally agricultural. The cultivation of the soil employs three-fourths of the people; and, during the last century, the face of the country has been changed from the most barren and unproductive in Europe, into one of the most fertile, producing all the needed home consumption and a large surplus for exportation. The state of agriculture, however, is different in the several provinces; and, in many sections, farming operations are carried on in a slovenly and unscientific manner. The principal crops grown are wheat, rye, barley, and oats; but the quantity of rye far exceeds all the others, and is the common food of the people. Peas, beans, and buckwheat are also raised; and, in Brandenburg, a species of food is collected from the "festuca fluitans." The culture of potatoes is increasing yearly, and has become so great as to supply nearly the entire food to a very large proportion of the laboring classes. Besides food, the soil also produces many articles for manufactures and commerce. Flax is certainly the most important of these; it is grown in every district and almost by every peasant. Silesia, however, is the great flax region, and yields two-thirds of the whole produce. Tobacco, madder, woad, safflower, and hops are cultivated on a small scale; and chicory, a substitute for coffee, is largely cultivated in many districts. Beets, for sugar, are raised in extensive plats, and have become an important branch of Prussian agriculture. Wine is made chiefly in the Rhenish provinces, and also, in a less measure, in Posen, Silesia, and Saxony. The culture of esculent vegetables has been carried to a great degree of perfection. Silk is not yet become an import product; but the climate is not unsuited for the worm, or growth of the mulberry. The most productive branch of rural economy, next to corn-growing, is that of breeding and fattening cattle; but neither the cattle nor the sheep are of the best breeds. The stock of sheep number about 15,000,000 leeces. Swine are very numerous, and form the chief animal diet of the peasantry. Of the lands of the kingdom, 29,000,000 acres are ploughed; 300,000 in garden culture; 10,000 vineyards; 15,000,000 meadow and pasture; and 18,000,000 woods, forests, and plantations. The remainder of the country is occupied by lakes, rivers, canals, marshes, roads, cities, towns, and sterile tracts, the whole amounting to eleven or twelve millions of acres.

Minerals.—Iron is found almost everywhere, and rock-salt and salt-springs abound. Coal is found in Westphalia, Saxony, Silesia, and Brandenburg; but the inferior means of transportation possessed by the country retard their working. Gold exists in Silesia, but not in such quantities as to render its mining remunerative. Silver is also mined in Silesia and Saxony. The useful and precious stones are abundantly supplied. Copper, cobalt, calamine, arsenic, alum, vitriol, saltpetre are produced, but in quantities not sufficient even for home-consumption. Amber is found in mines in Prussia proper, and is also thrown up by the sea, upon the coasts, which are strictly watched, and the produce guarded by government. This material is wrought into a variety of articles, and largely

exported by the Danes and Italians; but Turkey is the principal market, the Turks using it, to a great extent, for mouth-pieces for their pipes. More than 200 tons are produced annually, and afford to the government between 20,000 and 25,000 dollars revenue. The average annual quantity of the other metals produced is: silver, 23,000 marcs; copper, 17,000 (English) tons; pig-lead, 22,500 do.; litharge, 4,700 do.; black lead, 44,000 do.; zinc, 187,000 do.; ore of cobalt, 992 do.; ore of antimony, 4,600 do.; bituminous coal, 11,500,000 (Prussian) tons; anthracite coal, 2,700,000 do.; salt, 280,000 (English) tons; alum, 31,000 do.; vitriol, 39,000 do.; etc. amounting to a total value of about 15,000,000 rix dollars.

Manufactures.— Until lately, the manufacturing industry of Prussia was confined to domestic articles; but the introduction of railways and the erection of large factories have now carried the production beyond the demand for home consumption. The old practice of home-weaving is still, however, extensively pursued among the agricultural families. Weaving, however, is chiefly confined to four materials, viz. flax, cotton, wool, and silk. But, besides what is spun at home, Prussia imports largely from Great Britain. Wool is principally supplied from their own flocks; and, generally, only the coarse kinds are consumed at home, while the fine descriptions are exported, via Hamburg, to England and other countries. Linen is the largest manufacture,—much larger than that of woollens, but the latter is being rapidly increased. Silk is, as yet, only a minor manufacture. Knitting by the hand, which is practised by the laboring population as an occasional employment, and among the wealthier classes as a recreation, continues to supply a great part of the hosiery required, and at so cheap a rate that no machinery can compete with it. Prussia, however, though at the present time only a second rate manufacturing nation, has talent, material, cheap labor, and sufficient power and means of transportation to raise it, under a wise administration, into the first ranks, and give to it a position with which few nations will be able to compete.

Berlin is the centre of the iron manufactures, and has become celebrated for ornamental works in that material. Paper is also largely manufactured, and is furnished in sufficient quantities for home consumption. Leather is made to the full extent of the demand, and copper and brass wares for all domestic purposes. Tobacco, snuff, sugar, soap, candles, cabinet ware, earthen ware, porcelain, tin goods, and almost every article of common use, are manufactured within the kingdom. The establishments for brewing and distilling are very numerous. In the large cities the type-founders, printers, engravers, musical, optical, and mathematical instrument makers, gold and silver smiths, jewelers, watch-makers, and other artificers, are as numerous and as skilful as in any of the other continental States.

Commerce.— Prussia possesses no seaports but on the Baltic; and as none even of these are calculated to receive large ships, there is very little trade carried on by Prussia beyond the limits of Europe. The greater part of the exports is conveyed in foreign bottoms, of which British ships exceed those of all other nations together. The principal ports are Dantzic, Königsberg, Elbing, Memel, Stralsund, Colberg, Rugenwald, Stolpe, Barth, Swinemund, and Wolgast.

The commerce by land and by internal navigation is principally with Austria and Russia. From Austria the Prussians receive salt and wine, and send linen yarn in exchange. From Russia they import hemp, corn, hides, tallow, and other raw produce, and send in return both linen and woollen cloths. The Rhenish provinces carry on an extensive trade with Belgium, Holland, and the neighboring German States. The principal articles of general export are grain, linen and thread, cloth, zinc, iron work, copper and brass work, porcelain, timber, cabinet work, iron-mongery, needles, arms, Prussian blue, tobacco, salt meat, and musical and mathematical instruments. The most important imports are gold, mercury, tin, sugar, coffee, tea, spices, and other colonial produce; French and Hungarian wines, cotton, silk, and leaf tobacco. The principal trading towns are: *Berlin*, which is the centre of the commerce of the kingdom, and the seat of the great national bank; *Elberfeld*, the seat of the Rhenish West India Company and the principal place of foreign trade; *Breslau*, the entrepôt of the trade of Silesia; and *Cologne*, of that of the Rhine.

Roads, etc.— The roads throughout Prussia, as in the rest of Germany, were formerly very little calculated for carriage-travelling; but, of late years, excellent roads have been

uilt between the important towns, though in the more remote districts they still remain little better than tracks. Many of the rivers have been connected by canals; and railroads now extend through the chief commercial cities, and unite the western portion of the kingdom with the systems of Belgium, France, etc., facilities which will, no doubt, largely increase the commerce of the kingdom. Prussia derives an addition to its commercial and political importance from being at the head of the German Customs-Union.

Revenue and Debt.—The public revenues are derived from various sources, viz. from crown lands and forests; from mines, salt-works, and the porcelain factory at Berlin; from the post-office; from land and personal taxes, licenses, customs, excise, etc. The total annual receipts, on an average of ten years, are stated at \$50,704,500 Prussian; and total annual expenditures at \$51,123,500. The public debt amounts to some \$165,000,000, which pays and interest of \$6,929,800 annually. A sinking-fund is established for its redemption.

Army.—The Prussian army consists of: 1. the standing army; 2. the first-call of the Landwehr, or reserve; 3. the second-call of the Landwehr; and 4. the Landsturm,—a militia or national guard. The effective strength of the standing army is 150,000 in time of peace, and its war complement is 337,000. The Landwehr numbers 139,840. The ranks of the army are supplied by conscription and ballot, and with few exceptions, all between 18 and 26 are liable to be drawn for military service. The standing army is drawn only from those between 20 and 25; but volunteers may enter at 17, and choose the corps in which they will serve, and, on condition of equipping themselves, are exempted from more than one year's service. The others do duty with the standing army for three years; for two years more they belong to the reserve, and then pass into the Landwehr. As, however, only 25,000 or 30,000 recruits are required each year, the rest of the men of the requisite age pass at once into the Landwehr, in which they continue until 32 years of age. Thus is formed the first-call of the Landwehr, and in time of war forms part of the active army. The second-call consists of those between 32 and 39, who have previously served. These would garrison the fortresses in case of war. The Landsturm comprises all men between 17 and 50, who are liable to be called out to suppress civil commotion, or in defence of the country. The army is divided into nine corps d'armes, one of guards, and eight of the line. Thus every Prussian must serve in the line three years; in the first-call of the Landwehr, two; in the second-call of the Landwehr, until 39; and thence to 50 in the Landsturm; and from the commencement of his manhood until his vigor forsake him, he is liable to military service. Promotion to the highest rank is open to all, and soldiers maimed or severely wounded are supported by the State. To the military establishment also belong the institutions for the education of the children of soldiers, at Stralsund and Annaburg, and the military Orphan Hospital at Potsdam. The principal fortresses are: Kustrin and Spandau, in Brandenburg; Glatz, Glogau, Schweidnitz, Neisse, Sillerberg, and Kosel, in Silesia; Grandenz, Pillau, Thorn, Dantzic, with Weischselmunde, in Prussia; Posen, Colberg, and Stettin, in Pomerania; Magdeburg, Wittenberg, Torgau, and Erfurt, in Saxony; Minden, in Westphalia; Wesen, Cologne, Juliers, Saar-louis, Coblentz, and Ehrenbreitstein, in the Rhenish provinces. The king also furnishes the garrison of Luxemburg in common with the king of Holland; and that of Mentz, with the emperor of Austria.

Prussia is not a naval power.

Inhabitants.—The Germans form the preponderating race in the kingdom; but in Silesia, Posen, and the Prussias, the people are of Slavonic origin, and speak various dialects of the Slavic tongue. In East Prussia there are about 50,000 Lithuanians, who retain their peculiar language; and there are some Wendens or Vandals in Pomerania, East Prussia, and Brandenburg, who also have a distinct language. The Jews are most numerous in Posen, and number altogether about 170,000. By the Census (1849), the population amounts to:—

Males	8,162,805
Females	8,168,382
Total	16,331,187

Number of families.....	3,189,797
Number of dwelling-houses.....	1,945,174
Number of churches.....	16,897
School-houses.....	23,384
Asylums for orphans and destitute persons....	5,710
Civil, ecclesiastical, military, and hospital buildings.....	35,353
The evangelical Christians number.....	10,020,161
Roman Catholics.....	6,076,252
Deaf and dumb.....	11,973
Blind.....	9,579

Religion. — All creeds are equal in the eye of the law, though the Evangelical may be considered, in some respects, as the religion of the State. The Protestants are in a majority in East Prussia, Brandenburg, Pomerania, and Saxony; the Catholics in Westphalia, the Rhenish provinces and Posen; while Popery and Protestantism are nearly equally divided in Silesia and West Prussia. Without taking into account the smaller sects and Jews, it may be said that three-fifths of the Prussians are Protestants, and two-fifths Roman Catholics. The Protestant clergy of each province are under a synod, composed of the superintendents, who meet annually to deliberate on the affairs of the churches. They also superintend the schools, and take especial cognizance of the religious education given in them; and their decisions, after being approved of by the consistory of the province, are transmitted to the Minister of the Public Instruction. The Roman Catholics are under the spiritual supervision of two archbishops, and are distributed into nine dioceses and 3,200 parishes. Gnesen is the metropolitan see of the eastern, and Cologne of the western province. None of these bishops can be installed without the approval of the king. Public pilgrimages out of the kingdom are entirely prohibited, and none of greater extent than one day's journey are allowed within it. The Mennonites are excused from military duty, but in lieu of it are obliged to contribute to the support of the military academy at Culm. Jews enjoy equal rights, and are liable to conscription in the same mode as Christians.

Education. — The system of education in Prussia is the most complete ever established. It is the model on which all other systems are, or ought to be framed; and, indeed, Prussia is now quoted as the standard in reference to the degree of education possessed by other States. The instruction of all classes is carefully provided for, and the law compels all parents to send their children to school. Every parish is bound to have an elementary school, and every town to have one burgh school, or more, according to its population. Above these are gymnasia, synonymous with the academies of New York; and in these institutions classical learning and mathematics are pursued, preparatory to admission into the universities, of which there are seven, viz. those of Berlin, Breslau, Halle, Bonn, Königsburg, Munster, and Greifswald. Normal schools provide proper teachers for these several grades; and, in some cases, pecuniary assistance is given to poor scholars of good promise. The lower schools are generally supported by the towns and villages, or by school associations; and the gymnasia and the other similar establishments from the general funds of the State or the Province in which they are situated. The Normal Schools are partly supported by the State and partly by the departmental funds for schools. The universities are either endowed and have funds of their own, or their expenses are borne by the general fund of the nation. A Minister of Public Instruction superintends the whole. This minister is assisted by a numerous council, which is divided into three sections: one for church affairs; one for general education; and a third for medicine—all the members receiving salaries from the State. In each province there is a consistory formed on the same model, whose duty it is to superintend, directly, the gymnasia and higher burgh schools. The parish or minor town-schools are under the charge of the magistrates and curates of the respective parishes, assisted by committees. There is, moreover, in the chief town of every Circle an inspector, whose authority is confined within the Circle, and who corresponds with the local inspectors and committees. In the regency of every department there is a special councillor for the primary schools, the "Schulrath," who forms the connecting link between the public instruction and the ordinary civil administration of the province, inspects the schools, quickens and keeps

alive the zeal of the local inspectors, committees, and teachers, and conducts the correspondence relative to schools, in the name of the regency, with the local and superior inspectors, the provincial consistories, and the Minister of Public Instruction.

Government. — Until very recently the government was an unlimited monarchy, vested in a king. In 1846, however, the king promulgated a species of a constitution, and the first constitutional Diet was inaugurated at Berlin, 11th April, 1847; but this was suddenly dissolved on the 26th June, its proceedings having infringed on the prerogatives the king was anxious to reserve to himself. The revolutionary struggle which commenced in Italy, swept over France, and agitated with its doctrines every State of Europe, compelled the king again to call together his parliament; but the same difficulties beset their deliberations, and it was dissolved a second time; not, however, without the deputies protesting against the arbitrary proceedings of his majesty, and other demonstrations of an independent spirit. At the present time the bayonet keeps peace; and the people, except in determination to repel at a suitable time the aggressions of the king, may be said to be under as absolute a monarchy as that which existed previous to the constitution.

XIII. MINOR STATES OF EUROPE.

1. The *Scandinavian Peninsula* includes the two kingdoms of NORWAY and SWEDEN, united under the same king, but each having a legislature and administration of its own. Throughout the whole length of the peninsula, which embraces an area of about 300,000 square miles, a line of lofty and rugged mountains, hills, and table-lands extends, forming the watershed between the Atlantic and the Baltic. The crest of these mountains forms the boundary between Sweden and Norway. North of 63 deg. N. latitude, they form one ridge, rising abruptly on the west, and, as they proceed northward, gradually approaching the ocean. South of 63 deg. they form a table-land, having its eastern and western declivities deeply furrowed with valleys; and, from nearly the same point, various ridges branch off to the east and south, enclosing several large lakes. These mountains, in some parts, reach 8,000 feet in height. At no place are they at a greater distance than 100 miles from the western coast. On the eastern side they descend in long slopes, interrupted by small level plains, and intersected occasionally by ranges of hills. The general elevation of the country varies from 300 to 2,000 feet. The most southerly portion of Sweden, however, is actually low and flat.

Coarse sand or gravel, but partially covered with a thin layer of fertile soil, forms in general the champaign country. A large portion is covered with lakes, morasses, rivers, and with inconceivable numbers of boulder-stone or isolated rocks of every size. In some parts, the valleys are noted for their luxuriant fertility; but even in these much of the soil is thin, and obstructed by rocky knots rising above the surface.

The very small proportion of arable land produces articles of the same kind and quality as those of Britain. In the south, grapes and mulberries come to perfection; while in the north, not even grain is cultivated, and but few potatoes are grown. Above the snow-line, some lichens alone sustain a feeble existence, and after these vegetation ceases. At Stockholm, where the climate is comparatively moderate, the thermometer sinks to 28 deg. below zero, and a hundred miles further north the mercury freezes in the tube. But the pure bracing cold of winter invigorates the active powers of life, and is found, at least by the natives, far less irksome than the moist piercing blasts of more southern regions. The atmosphere is generally pure, and the ravages of contagious diseases are never experienced; while the short but bright summer brings corn to maturity in six or eight weeks. The mean annual quantity of rain is 17½ inches. In Norway the climate is more temperate than in Sweden, owing to the influence of the sea-winds.

Next to agriculture, the mines and forests constitute the chief source of wealth. Iron is scattered in lavish abundance throughout the country, and nine-tenths of the surface is covered with wood.

The principal manufacture is that of spirits, to which the inhabitants are inordinately addicted.

Both the Swedes and Norwegians, though speaking different languages, belong to the Germanic tribe, with the exception of about 7,000 Finlanders and 9,100 Laplanders. Jews are not allowed to dwell in Norway; while in Sweden they are not permitted to settle elsewhere than in the cities of Stockholm, Gottenburg, and Norrköping. In point of religion, the established church in Sweden and Norway is the Lutheran, arranged on similar principles as the church of England. In Sweden are 12 bishops (including the archbishop of Upsala, and 2,400 parishes; and in Norway, 5 bishops and 342 parishes.

There are 3 universities, viz. two in Sweden (at Upsala and at Lund) and one in Norway (at Christiania). Beside these, there are 18 gymnasiums (fourteen in Sweden, and four in Norway), 23 seminaries, 148 secondary and 2,994 primary schools. Only few of the peasantry are unable to read.

The government is a limited monarchy, both in Sweden and Norway. Each kingdom has its particular constitution, its own laws, and a national legislature; and yet, with reference to the executive power, both are under the control of the same sovereign. Sweden has no public debt; while that of Norway is quite trifling.

The regular army consists, in Sweden, of nearly 40,000, and in Norway of 12,000 men; and can, in time of war, be reinforced by 80,000 men of militia and troops of reserve.

The Swedish navy consists of 10 ships of the line, 14 frigates and sloops of war, 10 brigs, several steamers, and more than 300 gun-boats.

The inhabitants are inclined to a sea-faring life, and furnish numerous sailors to English and American ships. Population of the two kingdoms, 4,650,000; of whom 3,300,000 belong to Sweden.

2. DENMARK. — This kingdom includes, besides the duchies of Holstein and Sleswick, which form a part of Germany, the peninsula of Jutland and the adjacent islands, with Iceland and the Feroe Islands; in all, 53,000 square miles, with a population of 2,300,000. It also has some settlements on the coast of Greenland. The army consists of 25,000 men; the navy, of 7 ships of the line, 8 frigates, and several smaller vessels.

3. HOLLAND seems once to have been an extended swamp, the few inhabitants of which lived on the sandy elevations, and fared on the produce of the waters. The period when they began to protect themselves by dykes is not known; but for centuries they have successfully combated the waves of the sea, and the result has been a present safety and high state of cultivation to this amphibious territory. A great part of Holland is from 30 to 40 feet below the water-mark of the coast, and at various times the sea has burst its barriers, and on these occasions the most disastrous effects have been produced. In connection with the building of dykes, the draining of the country naturally presents itself; and consequently we find Holland intersected in every direction with canals and sluices, which answer the double means of draining and internal communication, and being lined with rows of trees, tend to beautify a most flat and uninteresting country.

Along the coast there is a line of sand-hills or downs, in some places so high as to shut out the view of the sea from the tops of the tallest spires. These appear to be formed by a natural process, which is still going on, and which is owing to the action of the winds on the dry sands, which are borne, in clouds of dust, for more than a mile inland. These downs, except at the mouths of rivers, form a sufficient barrier; and it is only to such excepted places that the attention of the Dutch is principally directed. There the dykes or bulwarks of earth have been constructed, and are carefully kept in repair. Across the country, in all directions, low mounds have been raised to enclose sections of land or fields called "polders," which are surrounded and intersected by ditches, into which the water runs, and from which it is drawn off by pumps worked by windmills, and carried along the tops of the dykes to the main canals, which intersect the country on a level with the sea.

Holland, as might naturally be supposed, has, in consequence of its superabundance of water and its unsheltered exposure to the sea-breeze, a very humid climate and a foggy atmosphere. This is more the case in summer than winter, the latter season being cleared of its vapor by the prevailing east winds and frosty atmosphere. Notwithstanding this excessive moisture, the health of the people does not materially suffer; but there are certain diseases specially attributable to the peculiar atmospheric condition of the country.

Rural industry is chiefly directed to the breeding and rearing of cattle ; and vast pastures, of the richest verdures, furnish abundant and wholesome nourishment to thousands of animals. In the north, wheat, flax, and madder are raised ; and in the south, where agriculture has made the greatest progress, tobacco. Of the total surface, more than two-thirds is under cultivation : about 125,000 acres are covered with cities, roads, etc. ; 250,000 acres by canals, rivers, etc. ; and 1,935,000 by heaths, sea-shore, downs, peat-bogs, etc.

Inhabitants.—Holland contains two distinct people : the Hollanders or Dutch, and the Frisons who occupy Friesland and its islands. A few Walloons inhabit Limburg and some other places.

Religion and Education.—Perfect freedom of worship is allowed. The majority are Calvinists. The Lutherans are next in numbers ; the Mennonites and Remonstrants are also numerous ; but all these sects, taken in the aggregate, do not amount to one-half the number of Calvinists. The clergy of all sects are maintained by government ; and the expenses of the universities of Leyden, Utrecht, and Groningen, are also defrayed by the State. These are resorted to by all sects, indiscriminately, whose theological studies are provided for, under professors of their own faith.

The Dutch system of education is excellent. The institution and regulation of primary schools was commenced under the Batavian republic, in 1804, but it was not until 1814 that it was in full effect. The great object in view is to educate every child in the simpler branches of general knowledge. General and local inspectors and boards of management superintend the whole, and no teacher is allowed to exercise his profession until properly examined as to his competency. The better class of schools are conducted by teachers, at their own risks. The law does not compel parents to send their children to school, but the poor are not allowed any relief from the public funds unless they do send them to the "Armen," or poor-schools ; and the result is, that there are none without education. Secular and religious education are entirely separated, the first being entrusted solely to the clergy.

The government is a constitutional monarchy. The king shares the legislative power with the "States General," which are divided into two chambers : the first consisting of from 40 to 60 members, nominated for life, by the king ; the second, of 116 deputies, elected, by the people of the provinces, for three years. These take the title of "Hoghen Moghen," or High and Mighty Lords, and are assembled once a year at least. Each province has its own "States," composed of members belonging to three orders, viz. the nobility, citizens, and the country population. The provincial States assemble once a year at least, or as often as convoked by the king. The government of the colonies is vested exclusively in the king.

Revenue and Debt.—The revenue is derived principally from a land-tax, excise duties, and customs. In amount it varies little from \$28,000,000. The public debt amounts to about \$500,000,000, and the yearly interest to about \$18,000,000, or more than half the total revenue.

The army, in time of peace, consists of about 40,000 men. The navy consists of 7 ships of the line, with 55 frigates and sloops of war, and a number of smaller vessels, mounting altogether, 2,274 guns. The number of vessels in commission in 1848 were 48, carrying 302 guns, and building and in ordinary 86, or in all, 134. The merchant-marine consists of 1,528 ships, and 241,676 tons.

Holland is not a manufacturing country. Some linens are made, however, as also woollen and cotton articles, but chiefly for domestic consumption. Tapes and other smaller wares are made at Haarlaem, and bleaching done to some extent. Sugar-refining is exclusively carried on in Amsterdam. Gin, of favorite brands, is made at Schneidam and other places, and the breweries are also large and numerous. Ship and boat building seems to be, at the present time, the chief branch of manufacturing industry.

Commerce.—The principal imports consist of grain, salt, wines, timber, lean cattle for fattening, millinery, and iron and other raw materials of manufacture. The exports are agricultural and dairy produce, salted provisions, spices and other East-India staples, madder, tobacco, flowers (bulbs), oil, gin, seeds, hides, borax, and camphor.

Holland still possesses a portion of that carrying-trade which formerly made her the first of commercial nations ; and she still retains the following colonies :—

1. In Asia : the islands of Java, Sumatra, Amboyna, and other of the Spice Islands, etc., the greatest part of the Island of Celebes, and settlements on Borneo ; the total area of which is computed at 97,405 square miles, and the total population at 9,750,000 inhabitants.

2. In Africa : settlements on the coast of Upper Guinea, estimated at 2,790 square miles, with 200,000 inhabitants.

3. In America : the colony of Surinam in Guiana, and the West-Indian islands of Curaçoa, St. Eustatius, and two smaller ones ; the total area of which is estimated at 39,064 square miles, and the total population at 101,590 inhabitants.

The Dutch trading-towns are : Amsterdam, Rotterdam, Middelburg, Flushing, Briel, Dort, Enkhuizen, Zieriksee, Groningen, and Utrecht.

The kingdom is divided into ten administrative divisions, called provinces, which are subdivided into districts, and the latter into cantons. Parts of Limburg and Luxemburg have lately been added ; but Luxemburg is not a part of the kingdom of Holland, and only belongs to the king in his capacity of grand-duke. It is properly a part of the German Confederacy, as is also about half of the province of Limburg.

Provinces.	Area in sq. miles.	Popula- tion.	Pop. to sq. mile.	Chief towns.	Popula- tion.
NORTH HOLLAND	967	448,828	465	Amsterdam.....	225,000
SOUTH HOLLAND.....	1,185	532,394	447	The Hague.....	66,000
ZEALAND	877	152,847	235	Middelburg.....	16,000
NORTH BRABANT.....	1,997	382,164	192	Bois-le-Duc.....	21,500
UTRECHT	587	146,029	249	Utrecht.....	45,000
GELDERLAND ..	1,883	350,288	186	Arnheim.....	15,000
OVERYSSEL	1,237	200,718	162	Zwoll.....	17,500
DRENTHE	986	78,777	75	Assen.....	2,800
GRONINGEN	868	177,951	207	Groningen.....	31,000
FRIESLAND	1,212	231,137	191	Leeuwarden.....	22,500
LIMBURG	819	198,143	215	Maestricht.....	31,000
Total of Holland.....	12,513	2,893,766	232	THE HAGUE.....	12,000
LUXEMBURG.....	1,156	160,680	139	Luxemburg.....	

4. BELGIUM. — The borders of Belgium, on the side of France, are rugged and rather mountainous, being traversed by a continuation of the Ardennes, and other ridges occupying the northern districts of that country. To the north, however, the surface is low, scarcely, if at all, raised above the sea, and is intersected in every direction by numerous rivers and canals, diversified by woods, arable lands, and meadows, and thickly studded with towns and villages. As in Holland, the country along the estuaries and rivers is protected from inundation by dykes, and along the open sea by sandhills or downs, varying in breadth from one to three miles, and in elevation from 50 to 60 feet. The navigation of the sea is rendered intricate by sandy accumulations, and for large ships even dangerous.

With respect to agriculture, the industry of the Flemings has, within two hundred years, converted a tract of land, originally a sandy and barren heath, into a rich and beautiful garden ; and the crops of wheat and of oats are considerably larger than in the best cultivated parts of England. Nine-elevenths of the soil are under actual cultivation, and about twice the quantity of corn required for home consumption is annually produced. The cultivators are in tolerably easy circumstances, and this flourishing state of agriculture operates favorably upon manufacturing industry, every branch of which is in full activity. Flax, raised principally in Flanders, Brabant, and Hainault, is one of the principal products, and brings a high price in foreign markets, on account of its excellent quality. Flanders produces this staple to the value of £1,600,000 annually. The linen of Flanders is also held in high esteem. Beet-root sugar is extensively produced.

The coal mines of Hainault alone produce more than those of the whole of France

and the annual quantity raised in Belgium exceeds 4,000,000 chaldrons. The iron mines were never worked more extensively than at the present time: more than 200,000 tons of iron are annually founded. The cloth-manufactures employ more than 40,000 persons and a capital of £3,500,000 sterling. In the linen-mills 400,000 persons are employed, and the value of the annual product is estimated at £4,500,000 sterling. The cotton interests are in a like flourishing condition; and, notwithstanding the loss of the Dutch colonial markets, have steadily improved since 1830, and now represent a capital of five or six millions. The lace and silk manufactures are also in a thriving condition.

In reference to its size, Belgium is one of the most important manufacturing States of Europe. The laces of Brussels and Mechlin, the cloths of Brabant, Flanders, and Hainault, the printed cottons of Ghent and Brussels, the carpets and pottery of Tournay, the papers of Liege, the arms and cutlery of Liege, Namur, and Charleroi, the gold and silver work of Ghent, Brussels, and Antwerp, the iron, steel, and brass articles of Namur and Liege, the steam-engines of Seraing, are all well known to the commercial world. The minor manufactures are also extensive; and, together with the above, occupy at least one-fifth of the male population. The shipping of Belgium is trifling, but her commerce is considerable, the intercourse with Germany being facilitated by an excellent system of railroads.

The majority of the people, known as Flemings, belong to the great Germanic tribe, and differ but little from the Dutch, in language, customs, and manners. The people in the south, or the Walloons, are for the most part descendants of the ancient Gauls, and speak dialects of the French language. The following Table will exhibit the extent and relative population of each of the provinces into which the country is divided.

Provinces.	Area in sq. miles.	Popula- tion.	Pop. to sq. mile.	Chief Towns.	Pop.
ANTWERP	1,098.....	365,000.....	332.....	Antwerp.....	76,000
BRABANT.....	1,269.....	620,000.....	488.....	BRUSSELS.....	120,000
WEST FLANDERS	1,251.....	700,000.....	560.....	Bruges.....	47,000
EAST FLANDERS.....	1,158.....	890,000.....	708.....	Ghent.....	95,000
HAINAULT.....	1,438.....	692,000.....	481.....	Mons.....	19,000
LIEGE	337.....	420,000.....	1,246.....	Liege.....	60,000
NAMUR	1,404.....	256,000.....	183.....	Namur.....	20,000
LIMBURG	927.....	175,000.....	188.....	Limburg.....	2,350
LUXEMBURG (in Germany).....	1,712.....	210,000.....	123.....	Arlon.....	3,500

About nineteen-twentieths of the Belgians are Roman Catholics, and the church of Rome is established by law. The clergy are very numerous and influential, and, as a general thing, the people are ignorant, bigoted, and superstitious. All other religions are tolerated, yet there are not 25,000 Protestants in the whole kingdom. The church is under the jurisdiction of the archbishop of Malines and the five bishops of Bruges, Ghent, Liege, Namur, and Tournay. The archbishop's salary is about \$20,000 per annum, and those of the bishops vary from \$11,000 to \$15,000. The cures, or parish priests are divided into three classes: of the first class there are 81; of the second, 165; and of the inferior clergy, 4,422, whose salaries vary from \$40 to \$150 per annum. All salaries are paid out of the public treasury.

By the Belgic constitution, education ceased to be compulsory; and the government has no control over it, except as regards the few schools paid by the State; the rest is left to individual enterprise, or the caprice of the communes. At least one-third of the rising generation are absolutely without any regular instruction. "Athenees," or colleges, are established in all the large towns. Besides these there are other colleges for general education, under the exclusive management of the clergy. The Jesuits have establishments of this kind at Brussels, Namur, Alost, and Ghent. These institutions are intended to compete with the "Athenees," and are conducted with more marked religious bias. They are, however, distinct from the Theological Seminaries established in each diocese for the education of the priesthood. Two universities are supported by the State, at Liege and Ghent; one was founded by the clergy at Louvain, and is supported by the church.

The university of Brussels is supported by a private association. The freedom of university education is almost as great as that of the schools.

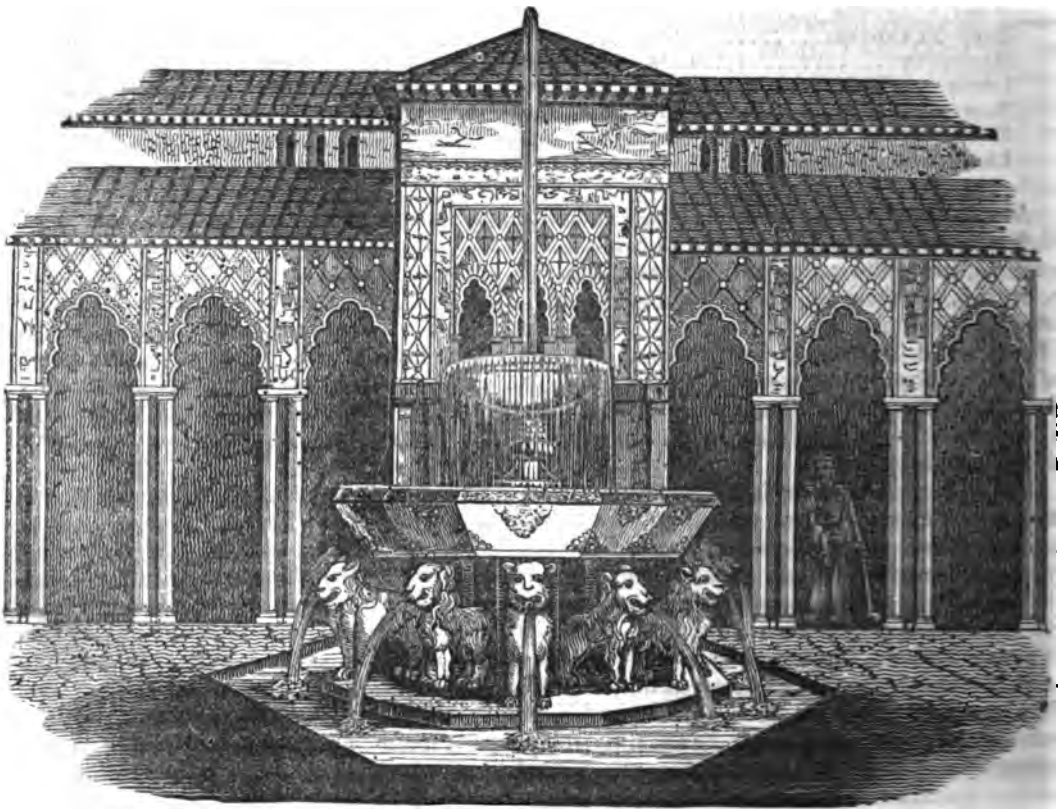
Belgium became a kingdom in 1831; and the constitution, on which it is based, vests the sovereignty in Leopold of Saxe Coburg and his heirs in perpetuity. The kingly power, however, is very limited. The legislature is composed of a Senate and a Chamber of Deputies: one deputy to 45,000. The senators are elected for eight years and the deputies for four years, by citizens paying direct tax. One half the deputies is renewed every two, and half the senators every four years. The chambers assemble annually on the second Friday in November; but the king has the right to convoke, adjourn, or dissolve them at will; and in case of dissolution, a new election of the whole is required. The executive is vested in the king, assisted by six responsible ministers. The king's pay is fixed at \$500,000, besides the use of the royal palaces. The judicial system is modelled after that of France.

The public revenue is about \$25,000,000 annually. About \$4,000,000 are expended in paying interest on the national debt, which amounts to about \$150,000,000.

The army is composed of about 90,000 effective men.

5. SPANISH PENINSULA. — This peninsula forms a remarkably compact geographical section, lying at the south-western extremity of Europe, with the continent of which it is connected by an isthmus, 230 miles broad. The superficial area is computed at 210,980 square miles; of which 176,480 belong to SPAIN, and 34,500 to PORTUGAL.

The interior may be considered as one vast table-land, traversed by numerous mountains and intersected by a succession of fertile valleys, from 1,800 to 2,600 feet above the ocean. Along the coast extends a narrow belt of maritime lowland, rising gradually from the margin of the sea, and broken by alternations of hill and dale, which produce a most agreeable variety of aspect, and present a pleasing contrast to the bleak and barren sameness by which the central region is characterized, traversed by long and lofty ranges of mountains, having plains of vast extent between them.



The Alhambra.

Spain, two centuries ago the leading State of Europe, has long been in a state of decay, but seems now to be somewhat reviving.

There has been no census of the Spanish population since 1788. The census of that year gave a total of 10,500,000. The population may be now estimated at about 13,000,000. Of this total, according to government returns, there are 1,898,283 able to read, and 1,221,000 who can also write. The state of educational means, at the close of 1851, exhibits a great increase since 1832. It includes 10 Universities, 10 Normal Schools of the first class, 23 Elementary Normal Schools supported by the State, 17,009 Boys' Schools with 626,882 scholars, 5,021 Girls' Schools with 201,200 scholars, 287 Infant Schools with 10,000 scholars; total scholars, 838,082. The system of teaching is a close model-copy of French methods; indeed, most of the recent organizations, of all sorts, have been borrowed from that quarter.

The military force of Spain is the first object of care to the government. It is said to be in fine order, and complete in all its arms. The force is :

		Annual Cost.
Infantry	79,670	\$4,180,000
Cavalry	12,000	870,000
Artillery	10,000	350,000

The navy, in 1851, consisted of 3 ships of the line, 5 frigates, 6 corvettes, 13 brigs, 22 steamboats, and a few small craft, manned by 4,000 sailors, 1650 marines, and 385 steam engineers, at an annual cost of \$4,200,000. The list of ships in 1843 was 24; in 1845, 42; in 1851, 64.

The commerce and industry of the nation are visibly improving. Of the latter, the chief seat is Catalonia. Asturia comes next. Then Malaga, Seville, and Cadiz. But of manufactured articles, Spain does not produce one-third of what she consumes.

Spanish Law has, of late, been greatly improved. The Mercantile code was completed in 1829; the Criminal, in 1848; the Civil, in 1851; all copied from the French codes.

The Roman Catholic is the established church; yet all other denominations are, at present, not only tolerated, but enjoy almost the same political privileges as the Catholics. In 1830, the Catholic clergy of Spain numbered 8 archbishops (the archbishop of Toledo ranks foremost as primate), 77 bishops, 2,393 canons, 1,869 prebendaries, 16,481 curates, 4,929 vicars, 17,411 beneficiaries, 27,757 seculars in orders, 15,015 sacristans, and 3,927 servitors. In the beginning of the year 1835, there were still 1,940 monasteries with 30,906 monks. But in the same year, 884 of these cloisters were abolished. The number of nunneries now flourishing and prosperous in Spain, is 2,386, and the desire to enter them is prevailing to a singular extent among the young Spanish women. Since the recent Concordat, 76 of these cloisters have been established in the diocese of Seville alone, containing an aggregate of 3,163 nuns, who devote themselves to the life of teachers, or to benevolent objects. Previous to the present Constitution, the number of nunneries was 6,310.

In the period from the year 1580 to 1640, when the immense Spanish dominions on the American continent and the Portuguese colonies were united, the total extent of the Spanish possessions amounted to 9,239,855 square miles.

Even yet the Spanish Colonies include an area of 110,760 square miles, with about 4,500,000 inhabitants.

1. In Africa: the so-called Presidios, or four fortified towns on the northern coast of Africa, opposite the province of Granada (Ceuta, Peñon de Velez, Alhucemas, and Melilla); and two islands in the Gulf of Guinea.
2. In America: the rich islands of Cuba and Porto Rico.
3. In Asia: the greatest part of the Philippine Islands.
4. In Polynesia: the Ladrone or Marianne Islands.

PORTUGAL, also, though distracted by civil war, and of little weight in the scale of European affairs, still retains some remnants of its former colonial dependencies.

The foreign possessions of Portugal consist of: 1. the Azores; 2. Madeira and Porto Santo; 3. the Cape de Verde Islands, on the western coast of Africa; 4. Angola, Mozambique, and other territories in Southern Africa; and 5. Goa, Diu, and other settlements in the East Indies.

6. SWITZERLAND. — *Surface.* Switzerland is a very high and rugged country, about 17,000 square miles in extent, traversed by ramifications from the Alps and Jura mountains. The centre of the Alpine system is Mount St. Gothard. From this point two ranges are given off to the south-west, forming the valley of the Vallais, watered by the Upper Rhone. Another range extends eastward through the Grisons, and forms the watershed between the Upper Rhine and the Swiss affluents of the Po. From these main ranges branches diverge, covering about two-thirds of the country, and forming numerous vallies, drained by an equal number of mountain torrents, all of which are ultimately precipitated either into the Rhine, the Rhone, the Po, or the Danube. The chain of the Jura is entirely separated from the Alps by the Lake of Geneva, the valley of the Rhone, and a long, narrow plain, which stretches eastward for nearly 180 miles, between the lakes of Constance and Geneva, but separated from both by ranges of hills and highlands. The width of this plain nowhere exceeds 20 miles, and its elevation varies from 1,200 to 1,350 feet above the sea-level.

The immense masses of these mountain regions exhibit a perfect chaos, and present on all sides, inaccessible rocks and everlasting snows. The intervening vallies, however, contain extensive districts, fertile and beautiful, and forming a singular contrast with the mountains that overshadow, and seem ready to overwhelm them. The gradations of animal and vegetable life are singularly marked at different elevations; and the vine, the oak, the beech, the fir, rapidly succeed each other until, from the limits of perpetual snow, animal and vegetable life becomes gradually more and more dwarfish, and at length give way beneath the blight of inhospitable regions which penetrate the skies. The high Alps commence at 6,500 feet elevation, and the reign of winter is here perpetual. At 8,000 feet is the region of glaciers, formed exclusively in the highest valleys, where the sun never penetrates. From Mount Blanc to the frontier of the Tyrol, 400 glaciers are counted, varying in size from 3 to 18 or 20 miles in length, and from a half to two and a half miles wide, and from 100 to 600 feet thick. Altogether, the glaciers of Switzerland compose a sea of ice more than 1,000 square miles in extent; and it is from these inexhaustible sources that the principal rivers of Europe are supplied with water.

Government. — Before 1798, Switzerland formed a confederation composed of three very distinct parts: thirteen cantons; the subjects and vassals of these cantons; and their allies. The thirteen cantons formed fifteen republics, of which eight were democratic, four aristocratic, and three oligarchical. The subjects and vassals of the thirteen cantons were possessed in common by the several cantons; the allies were countries associated with the Confederation and under its protection. In 1803, Switzerland was formed into a confederation of 19 cantons; which, on the downfall of Napoleon, was supplanted by the present federal system. By the federal acts of 5th August, 1815, twenty-two cantons were confederated for the mutual protection of their liberty and independence. The Diet which directs the general affairs of the country, is composed of deputies from the cantons, who give their votes under instruction, each canton having one vote. In this legislature is vested the power of making treaties; but the separate cantons may treat with foreign powers in military matters, and for purposes of economy and police; but these treaties must respect the federal pact and the rights of other cantons. The Diet appoints and recalls diplomatic agents, oversees the general safety, and regulates the military affairs of the federal army. When the Diet is not sitting, the direction of affairs is vested in the cantons of Zurich, Bern, and Lucerne, each retaining the right for two years by turns, commencing 15th January, 1815. The internal affairs of each separate canton are managed by independent local governments, much in the same way as in the United States.

The federal revenue is entirely distinct from that of the respective cantons, and is set apart to defray the general expenses, and for the maintenance of the confederate army and public instruction. This revenue is derived from interest accruing from certain capitals set aside for the purpose. For extraordinary expenses, each canton furnishes a contingent proportioned to its means. The sum total has been fixed, since 1818, at 539,276 Swiss francs, or about \$149,000.

No standing army is maintained, but there are troops in the pay of the several cantons. Each canton, however, must have its contingent to the federal army always ready to march. The number of men, fixed by law, is 33,758, besides the general staff; and as

equal number forms the contingents of reserve. A general levy might turn out 200,000 men able to bear arms.

The inhabitants of Switzerland belong to two principal stocks: the Germanic and the Latin. The former comprises the German Swiss, who inhabit Zurich, Lucerne, Uri, Schweiz, Unterwalden, Glarus, Zug, Appenzell, St. Gall, Thurgau, Schaffhausen, and Aargau; the greater part of Berne and Basle; a considerable part of Soleure, Fribourg, and Valais; some communes of Vaud, and the communes of Bosco in the canton of Tessin. They form about seven-tenths of the total population. The Latin stock comprises the French, the Roman, and the Italian Swiss. The French occupy Neuchâtel, Geneva, and Vaud, part of Soleure, Fribourg, and Valais, and the Jura-portion of Basle and Berne. They form about one-fifth of the whole. The Romans or Rhetians are found only in the Grisons, in the Oberland, and in the Engadine. They speak a language which they call the Ladin, and which is more near the Latin than either the French or Italian; and seem to be a distinct people, supposed to have originally emigrated from the Rhetian Hills. The Italians inhabit Tessin, some valleys of the Grisons, and some places in Valais. The German is the language used in the general affairs of the Confederation, and in those of all the cantons except Tessin, Vaud, Neuchâtel, and Geneva. The Swiss-German, however, contains no less than 35 dialects, while the French has 15, and the Italian and Roman each 2 dialects; so that there are no fewer than 54 distinct dialects spoken in different parts of Switzerland.

The Swiss are divided between Protestantism and Popery; and, as a general remark, it may be stated, that nearly all the Germans profess the Protestant, and the French, Italians, and Romans the Roman Catholic religion. The relative numbers are about 1,300,000 Protestants, and 850,000 Catholics. There are, besides, some Anabaptists, and about 2,000 Jews. The latter enjoy no political rights. This mixture of races and religions proves anything but a source of harmony among the Swiss. The Catholics are bigoted, and the Protestants retaliate. Neither allows the other to become citizens of their respective cantons. In some of the cantons Catholicism is peremptory, and all children must be brought up to that faith. There are four Roman Catholic dioceses: Chur and St. Gall, Basle, Lausanne, and Sion; the bishops of which are suffragans of the archbishop of Milan. The Catholic clergy number about 6,000, and are much more numerous than the Protestant. The Protestant church is Presbyterian in form, and its government is considered a branch of the department of public instruction, and, as such, belongs to the magistrates of the different cantons. Several disturbances have occurred between the rival churches, and much blood flowed on both sides. In 1847, civil war was the result; but the Protestants prevailed, and expelled the Jesuits and all monastic orders from the Confederation. The Protestants even are divided, among themselves, into Rationalists and Orthodox, a division which has greatly influenced their politics.

7. ITALY. — Italy, within the last five years, has been the scene of an unsuccessful struggle for political freedom. The unfortunate condition in which she has been left by it, is vividly portrayed in the following extracts from a recent letter:—

“The modern troubles of Italy began when England and the allied Powers of 1815 restored the princes and priests, which had so long degraded the people before Napoleon’s army crossed the Alps. The restoration of the Bourbons and the House of Savoy, was a restoration of a system of rule which brought about the great movement of 1848. The revolution of 1848 was no partial movement, it was the up-heaving of a whole people; it required, therefore, unusual efforts and a large physical force to put it down, to which France has contributed some 15,000 men, now in Rome; Switzerland, 12,000, now in the kingdom of the Two Sicilies; Austria 20,000, now in Tuscany and the Roman States. With such foreign aid, the government of Italy, from the frontiers of Piedmont to the island of Sicily, have carried on, up to the present day, a systematic persecution of the liberals—those who, in 1848, were in any way conspicuous for their support of Constitutional government.

“Hundreds of men have been sent, chained, to the galleys for life, where they are slowly dying. Hundreds more are in prison, not even knowing their offence, while thousands have fled their native land and are now in England and America. The amount of misery thus created is beyond calculation: the son has fled from the father, the father

from the family, their interests all broken up and in ruin, their affections and ties torn with no consolation at present, excepting having fought under that banner of liberty which has claimed so many victims in all ages.

"The best information gives at least 100,000 Italians imprisoned for what are called "political offences," since 1848; while about 150,000 have fled the country. The numbers now actually in prison may be about 30,000. This is a frightful state of things, when it is remembered that their only offence is an endeavor to support that form of government to which their sovereigns swore, before God and man!

"In Piedmont, the young king, Victor Emanuel, holds by his Constitutional oath. Unlike the other sovereigns of Italy, he can walk about without spies and soldiers to guard him. A wise and moderate Parliament is working to improve the social condition of the people, and framing such laws as the age demands. Railroads will ere long thread Sardinia in every direction. The commerce of the ports has nearly doubled since 1848. The Press is free, and the literature of the country is no longer confined to the stupid fables of miraculous imposture; but a useful and educating class of works are elevating the condition of the masses, and enabling them to avail themselves of the science of the day.

"The grand-duke of *Tuscany*, afraid of his life, is thinking about abdicating. The resources of the country are absorbed to pay an Austrian army, which occupies the country but does not mix with the people. Criminal Courts are employed in trying political offenders, and violating justice in every way. An army of spies are the pest of society: you find them in the café and the drawing-room; in the church and the theatre. Men are imprisoned for reading the Bible. There is a press at work, but all under the revision of the police, who again are responsible to the Jesuits. Trade languishes; discontent and poverty meet you on all sides.



THE POPE BLESSING THE PEOPLE.

"At Rome we have Papacy—the curse of every country where it is allowed civil power—supported by French bayonets. The priests, instead of looking after men's souls, are trying to govern a country; as if we were living in the days of the Borgia. The Inquisition has opened its gates in 1853, and French soldiers are on guard at the door! Scarcely a week passes without arrests; and conspiracies grow like fungi, on the rottenness of papal rule. Austrian soldiers occupy some parts of the Roman States, while Louis Napoleon's imperialists play the *flâneur* in the Eternal City. The Romans want to get rid of the temporal power of the Pope, and all Europe says No! It has been proved that cardinals and bishops make bad statesmen. Praying to the Madonna alone, won't improve the finances of a country, nor cause roads and ports to build themselves. Unfortunately, "miracles" are always confined to some very useless productions. A winking virgin or a sweating statue may improve the finances of a particular church, but neither will improve the condition of the people. The Romans know this as well as we do—they have suffered and do suffer from priestly rule. They rose and shook it off, and it took four armies—

those of France, Austria, Spain, and Naples—to impose this curse once more on the descendants of the Old World's conquerors.

"I speak from personal experience when I say, there never was so little respect for the

papacy in Rome as at the present moment. In fact the whole Italian revolution is religious as well as political, and out of such will grow, assuredly, a second great Reformation. The church is trying hard to arrest this event; but what you see of life about it, is more like the convulsions caused by a galvanic battery on a dead body, than real vitality. We must now pass on to the kingdom of the *Two Sicilies*. The king has shown himself one of the most cruel and vindictive sovereigns of Italy. He was the first to grant his people a Constitutional Charter in 1848, and the first to repudiate it. He joined the war of independence only to betray Charles Albert: he called together a Parliament to deceive the people. As soon as he was able, he imprisoned thousands of his subjects for political opinion, and to this day is doing the same by the aid of a Swiss army. No Italian State has suffered more than Naples and Sicily. The king has dedicated a large private fortune to soldiers and spies. He has now not less than 120,000 men under arms; a larger standing force than that of Great Britain. Under such circumstances, he is a valuable ally of Austria and a great moral support to the smaller Italian despots. Being a rich country, the finances of Naples are in a much better state than those of Rome and Tuscany; but trade and commerce are not improving; and rebellion, like the fire of Vesuvius, burns under the apparently-tranquil surface. Here, too, the police are always at work, even to compelling people to shave in a particular way, or not to wear a certain shaped hat. There is no Press but that of the police; and Neapolitans dare not read foreign journals. Education is entirely in the hands of the Jesuits, who dictate the books from which youth is to be instructed. The masses are amused continually by church feasts and miracles. Those who do not attend church are reported to the police.

"The whole country is depopulated of the leading men of the liberal professions; and law-courts and public business generally is carried on by the most wretched members of society, who have obtained their places by denouncing honest men. The king lives mostly at Gaeta, a fortress of considerable strength many miles from Naples. When he comes to the capital, he is generally surrounded by cavalry, and a cloud of police skirmishers are sent out on all sides.

"It will be seen, then, that Italy, with the exception of Piedmont, can have no respect for her rulers; and that the existing government and the existing system of governing cannot last long. When the Italians next rise, they will get rid of the Pope as a temporal prince; and suggest his sojourn at Jerusalem, which, after all, would be the proper place for his Holiness. Never again will the people trust the present generation of sovereigns.

8. GREECE.—The kingdom of Greece, estimated to contain 20,000 square miles, embraces the following natural divisions:—

Hellas, or Greece Proper—a long tract of hilly country, extending about 185 miles from east to west, with a breadth nowhere exceeding 50 miles, between Thessaly and Albania, and the gulfs of Lepanto and Egina; the Morea, the ancient Peloponnesus, a peninsula 137 miles in length by 135 in its greatest breadth, but of very irregular form, and connected with the mainland of Hellas by the isthmus of Corinth; the following islands, chiefly in the Archipelago, viz. Hydra, Spezzia, Poros, Egina, Angistra, Salamis, Scopelos, Helidromia, Sciathos, Scyros, Syra, Tinos, Miconos, Cea, Thermia, Naxos, Paros and Antiparos, Siphnos, Seriphos, Cimolos, Milo, Polycandros, Sicinos, Ios, Amorgos, Santorin, Anaphe, Astypalœa, and Eubœa or Negropont.

The continental portion of Greece is characterized by a very singular distribution of its mountains, which are so disposed as to enclose large basins or circular hollows. The country is thus marked out into distinct districts, well adapted to become small communities, such as we find the States of ancient Greece to have been. Some of these basins terminate at the coast, and seem to have been formed by the retiring of the sea, as those of Athens, Argos, Laconia, Messenia, and Elis. Others are completely surrounded by their mountain ramparts, except at one point, where the accumulated waters of the basins have forced for themselves an outlet: such are those of Bœotia and Arcadia. Central Hellas is a rugged district, being occupied almost entirely by the branches and declivities of mounts Cœta, Helicon, and Parnassus. East and south of this are Bœotia and Attica. Bœotia is entirely enclosed by highlands, and is divided centrally by a low range of hills. The lake of Topolias, which occupies the bottom of the larger division, receives all the waters of the district, which it sends off by subterraneous passages to the sea, on the

north-east. The country is very fertile, but subject to fogs and marshy exhalations. Attica, to the south-east, is comparatively arid and barren, but is peculiarly distinguished for the beauty and serenity of its climate. Western Hellas has a physical character different from that of the eastern portion: it consists of long valleys opening to the south, and rising towards the mountains of the north.

The Morea consists of an elevated central plateau or valley, and of five separate maritime regions, formed by the exterior declivities of the mountains, and divided by their spurs or branches. The central valley of Arcadia, so famed in pastoral poetry, is high and cold, often covered with fogs, and subject to malaria. Most of its waters are carried off by the single channel of the river Roufia; but it has sometimes suffered from partial inundations. The coast regions are generally well watered and fertile; partly broken by rugged hills, but usually level. They are distinguished by the names of Argolis, which stretches in a semicircle round the Gulf of Nauplia; Laconia, around the Gulf of Lolokithi; Messenia, occupying the south-west; Elis on the west coast, and Achaia on the north. The two latter are hilly, with small river valleys, but rather dry.

The Cyclades, and the other islands in the Archipelago, are almost all steep and rocky. Eubœa is traversed, throughout its whole length, by a ridge of hills, and is separated from the mainland of eastern Hellas by a very long channel or strait, so narrow at the middle as to be spanned by a bridge.

The mountains which cover so large a portion of the country are partly wooded and partly naked; the woods abound most on the west side. The low country, susceptible of tillage, probably does not amount to two-fifths parts of the surface, and not more than a twelfth part of it is under cultivation. Its want of enclosures, the thinness of its population, the ruinous condition of its cottages, commingled with the crumbling remains of noble structures, give it a deserted, desolate, and melancholy appearance; and towards the end of summer, the whole seems parched.

Five million acres are computed as being adapted to agriculture; 1,750,000 acres as woodland; 180,000 as vineyards, and 4,500 acres as currant-plantations. The Corinthian grape or currant is almost peculiar to the Morea and the Ionian Islands. The number of olive-trees amounted, in 1845, to 723,101. The number of black cattle was, in the same year, only 110,114 heads; of horses (of small breed, but enduring), 84,723; of mules, 23,956; of common asses, 63,754; of hogs, 78,292; of goats, 1,876,269; and of sheep, 2,442,769. The rearing of the silk-worm and of bees is considerable.

The manufactures are small in amount, and consist chiefly of carpets, canvas, and morocco leather.

In 1840, the imports were at the aggregate value of \$13,507,000, and the exports at the value of 13,848,000. The Greek merchant vessels amounted, in 1843, to 3,169, of the burthen of 137,508 tons, and were navigated by 19,000 men. In 1845, they had increased to 3,314, which were navigated by 20,000 men. The Greeks are the best sailors in the Mediterranean, and in the art of ship-building they are likewise highly skilled.

The dominant race are the "Hellenes," who claim to be the descendants of the ancient people who rendered this country so famous; but they have unquestionably received a large proportion of barbaric blood, particularly by intermixture with the Slavonians. They are a rude and unenlightened people, with all the vices of slaves and few redeeming virtues, but they are ingenious, active, enterprising, and restless; and now that they have received some degree of national independence and civil liberty, they may be able to turn their talents to account in re-acquiring a portion of that civilization and learning they formerly diffused over western Europe. Their language, the Romaic, bears a much closer resemblance to the ancient Greek than the Italian does to the Latin. The "Arnaouts," or Albanians are very numerous, and have generally preserved their national manners, dress, and language. They chiefly dwell in the cities of Hellas, and in some portions only of the Morea. The "Mainotes," who boast that they descend from the ancient Spartans, inhabit the mountains of the south. They are a wild and lawless race, living under a sort of patriarchal feudal government, exercised by hereditary chiefs. The total amount of the population, in 1837, was 926,000, and may probaly now count, in round numbers, 950,000.

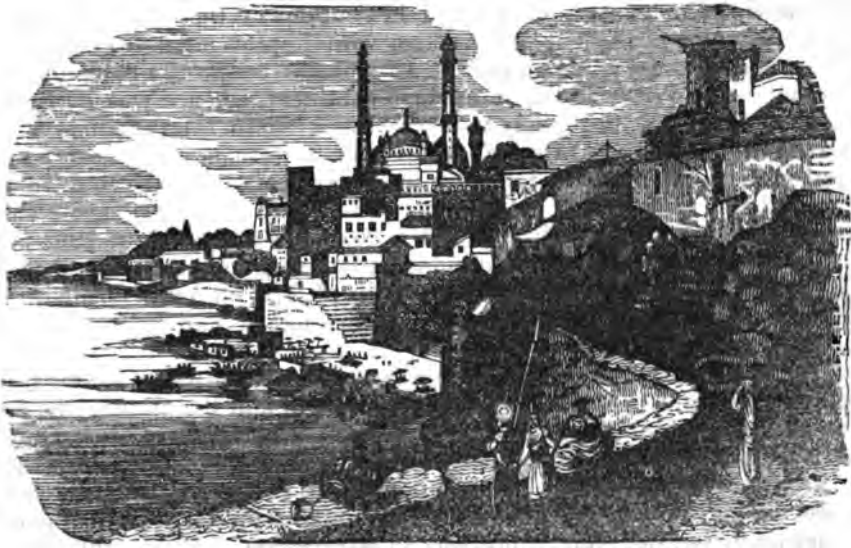
The government is a constitutional monarchy, but the elements of its political system

are in a very disorganized condition. The present king is a scion of the house of Bavaria. The council of the State is composed of three Vice-presidents, 17 Councillors in ordinary, and 14 special Councillors. In 1834, Athens was declared to be the capital. For administrative purposes, the kingdom is divided into twenty-four "nomoi," or governments, and seven sub-governments. The defensive means consist of 12,000 men of all arms, besides the militia; and they have a navy which numbers 32 small vessels, carrying 190 guns and 2,400 men. The revenue amounts to about 14,500,000 drachms, or about \$2,500,000; but the expenditure, in most years, exceeds this sum. The public debt is about \$35,000,000.

Since the 4th August, 1833, the established religion of the State has been that of the "Orthodox Oriental Apostolic Church," of which the king is the head. Its government is vested in a "Holy Synod," which meets annually, and consists of a president and five other members, with two secretaries. There are 33 bishops of the Greek Church; and Roman Catholic bishops at Naxos, Tinos, Syra, and Santorini. The Greeks are very jealous of their religion, and will not admit of propagandism.

Education, until lately, has been entirely neglected; even the priests were illiterate; but under the new regime a respectable system of instruction has been established. At Athens there is a university, with 30 professors; a gymnasium, with 8 professors; a high school; a normal school for the education of teachers; and three Lancasterian schools. These are all supported by government; and the scholars are promoted from the lower to the higher on certificates of competency, for which there appears to be great competition. In the other parts of the kingdom, there are four gymnasia, and about two or three hundred primary and secondary schools, partly paid from the treasury.

XIV. ASIA.



Benares.

No great period has elapsed since the inhabitants of Europe were accustomed to look towards the nations of Asia with the awe and reverence which acknowledged superiority inspires. These eastern nations were supposed far to excel those of the west, in wealth as well as in science. They were imagined to have a nearer and firmer hold upon those treasures of ancient wisdom formerly supposed to be the only sources of human enlightenment. Though imagination and the customary exaggeration of travellers contributed not a little to these notions, yet two or three hundred years ago they were not altogether unfounded in fact. At that period, Asia could show four extensive and powerful empires,

far exceeding, in the numbers of their people and in the amount of their revenue anything that Europe could boast of. Besides the Chinese empire, there was the Mogul empire in Hindostan; the kingdom of Persia, then extensive, flourishing, and united; and the Ottoman empire, which, at that period, was the dread of all Europe. But while, during the last two or three centuries, Europe and the European colonies have been advancing in the career of wealth and improvement, with constantly-accelerating strides, the inhabitants of Asia have been stationary or declining. Throughout all that vast extent of country and population, except indeed in a few spots, where the influence of Europe has been felt, there is nothing of that curiosity, activity, enterprise, and bustle, by which all the nations of Europe are at present more or less distinguished. There exists upon the Asiatics an excessive reverence for all old customs, and for everything established. They still hold to the dogma, which once prevailed in Europe, but which now is generally repudiated, that modern times and modern men are inferior to those of antiquity; and that wisdom is to be acquired not by looking forward but by looking backward. It is a doctrine currently received throughout the entire East, that whatever happens is to be quietly submitted to, as the decree and ordinance of Providence, which it is in vain to resist. Success, no matter by what means obtained, is there regarded as a mark of Divine favor, and the successful man is submitted to, and almost worshipped, as the chosen viceroy of God. These theological views, though in speculation not confined to Asia, have a vast deal greater influence over practical life in the East than in the West; and they serve to explain, to a considerable extent, the peculiar political and social condition of all those countries. Power is worshipped there, as being a direct emanation from the Deity. An usurper or political adventurer, successful in one or two battles or intrigues, acquires by that very success, a *prestige* which works powerfully in his favor. The same opinions were, at one time, prevalent in Europe. At that time, it was customary to employ the ordeal, or the wager of battle, as a means of judicial investigation. These notions, which at present have no practical influence in Europe, are still in full vogue in the East; and combine with the political and social institutions of those countries to produce a state of torpidity and negligence inconsistent with improvement. The consequence is, that the active and progressive nations of Europe are constantly extending their influence and power over Asia; and that ancient continent, whence was derived the early civilization of Europe, seems likely to receive back again from Europe a higher and more expansive civilization. Russia and Great Britain are the two powers which exercise, at present, the greatest influence in Asia. Russia is carrying on a perpetual war against the mountaineers of Caucasus and the wandering tribes of Tartary; and though occasionally or temporarily repulsed, is gradually and surely reducing them under her control. Russia exercises a predominating influence in Persia: she has obtained a sort of joint authority over the Turkish provinces of Moldavia and Wallachia; and she keeps her eye constantly fixed on the maritime provinces of Turkey, and even upon Constantinople itself.

Great Britain, in the course of about three quarters of a century, through the agency of a trading company, has superseded the Great Mogul and the princes who had divided among them the fragments of the Mogul empire, all of whom have been reduced, by the British, to a tributary condition, or entirely stripped of their dominions. But the influence of Great Britain is not confined within the boundaries of its Indian territories. It is felt, more or less, by all the neighboring nations. Though repulsed from Afghanistan, Burmah is passing under British control; and, in prosecution of the recent opium-war, the British arms were carried even into China, hitherto almost inaccessible to Europeans, but which, by the planting of Anglo-American colonies on the American Paraguay coast, is brought, more and more, into the circle of European intercourse. There can indeed be but little doubt that the next century will see changes, still more remarkable than the last, in the opinions, institutions, and social life of the Asiatics.

XV. OTTOMAN EMPIRE.



Smyrna.

Though the Ottoman empire includes, within its nominal sway, portions of Europe and Africa, as well as of Asia, yet, as the Turks originated in Asia, whence they extended their conquests into Europe and Africa, they are properly to be reckoned among the Asiatics. There have been, within the period of history, several Turkish empires, that is, extensive kingdoms founded by tribes of the same general origin, and speaking dialects of the same language with the Ottomans. The present Turkish empire took its rise about 550 years ago, with Othman, a shepherd and robber, head of a small migratory clan, who first pillaged and then conquered the portions of Asia Minor bordering on the Black Sea. Under a succession of enterprising princes they gradually extended their conquests, till Mohammed II., A. D. 1453, took Constantinople, subjected the remaining fragments of the Greek empire, and spread terror throughout Europe. The Turks, thus become the successors of the Roman empire of the East, remained dreaded and formidable for more than 200 years. The conquest of Egypt by Selim I. in 1518, put into his power the descendant of the old line of caliphs of Bagdad,—a family which had, 250 years before, fled before the Mongols and taken refuge with the Mamelukes of Egypt, under whom they had lived obscure and powerless, though still claiming, as the regular descendants of the prophet, to be the spiritual heads of the Mohammedan religion. Selim procured from the last of this family, a renunciation of the caliphate in his favor; and ever since that time, the Turkish sultans have claimed not only a temporal but a spiritual sovereignty, as being the legal head of all true Mohammedans, and the authorized guardian of the holy cities of Mecca and Medina.

The Persians, however, who have always been at enmity with the Turks, refused to acknowledge this spiritual supremacy. Shah Ismael, who about this time, when this claim was first set up, had reunited the broken fragments of Persia into a consolidated empire, revived at the same time the faith of Ali, according to which the true caliphate had descended in the line of Ali the husband of Fatima, Mohammed's daughter; and as Hassan the son of Ali had been displaced and murdered by Moawiyah the founder of the Omniades, under whom the Turkish sultan claimed, that claim was pronounced by the Persians wholly baseless and unfounded. This dispute about the true line of the caliphate, had early divided the Mohammedans into two bitterly hostile sects, called *Sonnites* and *Shiites*. The Shiite faith had fallen into obscurity; but when the sultan of Turkey claimed to be the legal head of the Sonneite party, it was revived by the king of Persia,

for political reasons, as he did not choose to acknowledge a rival prince as the spiritual head of their common religion; and thus revived, it continues to exist in full vigor to the present day.

The Turks always were, as they are now, a small and in some districts inconsiderable portion of the population of the countries which they govern. Even among the Mohammedan population of those countries, they are quite in the minority. The permanency of their power has been remarkable, and far exceeds anything which history records of the numerous other Asiatic empires founded and governed in the same way. This is to be explained by the institution of the Janizaries, an institution established as long ago as 1360, and to which the permanency and power of the Ottoman empire is principally to be ascribed. The Janizaries were a standing army of a very peculiar construction. They were all slaves purchased when boys, and bred up to arms and a bigoted attachment to the Mohammedan faith. They were selected, in the first place, for their robustness and manly beauty; and the exercises in which they spent their lives, contributed to develop these qualities. It was from this body that almost all the military leaders and governors of provinces were selected. In Turkey, inheritance of power, except in the family of the sultan, was almost unknown. The children of the pashas, brought up as the seraglios, were for the most part effeminate and spiritless; the glory and power of the Turkish empire was supported by a succession of chiefs from the ranks of the Janizaries, who though Turks in name and by education, were not so in blood, as all the wealthier of them supplied their seraglios with Caucasian beauties, thus gradually changed their race, and from being one of the ugliest, became one of the handsomest of nations. Those persons who bear, at present, the name of Turks, have but very little if any Turkish blood, and bear hardly any personal resemblance to the Turkomans and Tartars from which stock they derive their name.

The idea of the institution of the Janizaries was perhaps derived from the Mamelukes of Egypt, a similar body of slaves trained to arms, who ruled that country for near six hundred years. They indeed acknowledged the supremacy of Selim I. and his successors, but they continued the actual rulers of Egypt till they were broken by the French invasion in 1798, and finally extirpated by the arts and arms of Ali Pasha.

It is evident that an institution like the Janizaries, notwithstanding that luxury and effeminacy in which the Turks indulged, and which always waste away every similar tribe of barbarian conquerors, had a tendency to preserve the military power of the Turks fresh and vigorous; and so long as military power was mainly dependent upon the personal prowess and courage of the soldiers, they remained a full match for any of their Christian neighbors. It was only the vast improvements and changes in the art of destruction, which European science has introduced within the last two hundred years, and of which the Janizaries remained in a great measure ignorant, that threw the Turks into the back ground.

But if the Janizaries were the support of the Ottoman empire, they presently became the tyrants of the sultans, whom they deposed and murdered at pleasure. The sultans long struggled against their overwhelming power, but without success, till finally the late sultan Mahmoud II. succeeded in breaking up and abolishing the Janizaries and introducing a standing army, on the European plan. There can be little doubt that this step will hasten the downfall of the Turkish empire, which has long been in a declining state, and is only kept together by the mutual jealousy of the great European powers; or at least, if the empire subsists, that it will lead to the curtailment or abolition of the special privileges enjoyed by the Turks, and will lead to its reconstruction after European models. It is composed, at present, of certain districts more immediately under the authority of the sultan, and of others which have their own princes, who acknowledge a superiority, in several cases merely nominal, in the Ottoman Porte.

Under the first head are included, in Europe, the provinces of *Rumelia*, *Bulgaria*, *Albania* and *Bosnia* (the ancient Thrace, Mœsia, Epirus, and Pomerania), *Macedonia*, *Thessaly*, *Candia*, and most of the islands of the Archipelago, together with *Anatolia*, and a number of other Asiatic provinces (the ancient Asia Minor, Syria, Mesopotamia, and part of Armenia). These countries, once so rich and flourishing (for

the Ottoman dominion is nearly coextensive with, as in fact it is the successor of, the old Roman empire of the East), are at present, for the most part, in a wretched and declining state. In the Asiatic portions of it, the whole country, out of the walls of the cities, is exposed to be plundered by wandering tribes, Arabs, Kurds, and Turkomans, who combine the professions of shepherds and robbers, and who maintain a sort of independence in the deserts and mountains. What they leave, is liable to be extorted from the unhappy cultivators by the arbitrary power of the Turkish military rulers. The cities are, for the most part, but mouldering fragments of what they once were. The damages occasioned by fire, inundations, earthquakes, or hostile armies, are seldom repaired; and the accumulated results of former productive and industrious ages are gradually wasting away.

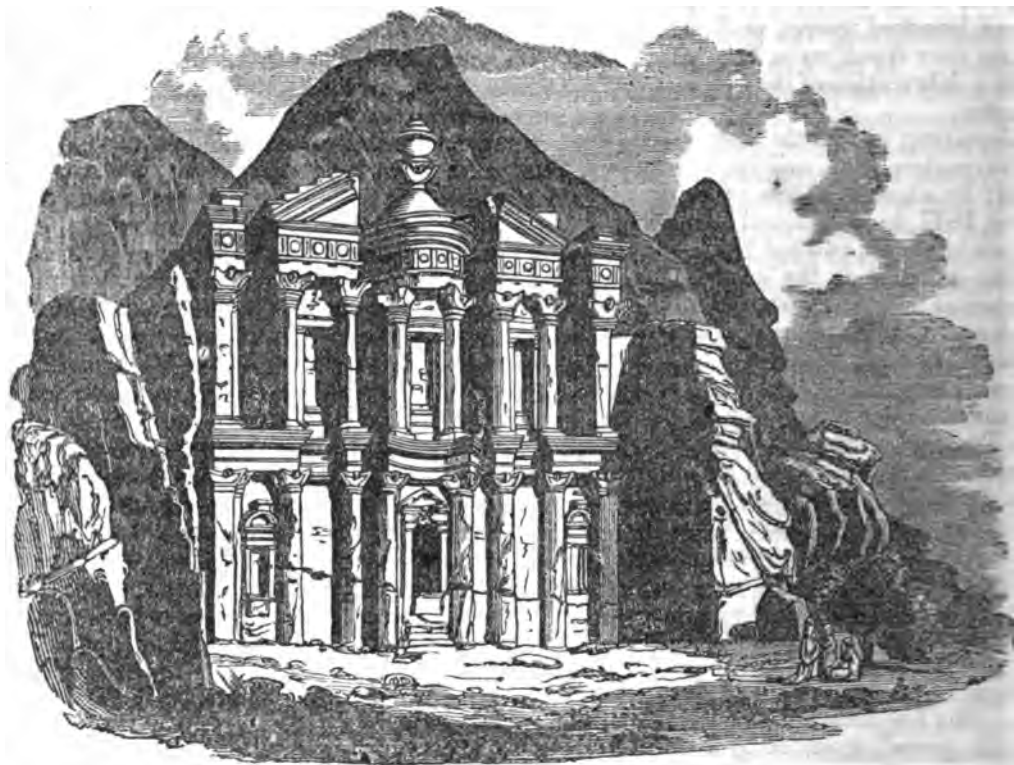
Under the second head, or that of tributary provinces, we may reckon: 1. *Moldavia*, *Wallachia*, and *Servia*; the population of which are principally Christians of Slavonic descent, and which are governed by princes of their own, over whose appointment the sultan has but a limited influence; 2. the pachalic of *Egypt* and its appurtenances, now made hereditary in the family of Ali Pasha; 3. the sheriff of *Mecca*, and the beys of *Tunis* and *Tripoli*, who at present hardly acknowledge, except as it meets their own convenience and wishes, the supremacy claimed by the Porte.

The present sultan, Abul Musid, does not inherit the talent and energy of his father; yet he sustains and carries out the changes which his father introduced, and which are gradually producing their effect, in spite of the efforts of the more bigoted Turks to prevent it. He is the first Turkish monarch who has not murdered his brother! This dangerous relative lives, and is regarded as the head of the old Turkish party. The sultan abhors war and detests capital punishments. He has a great fondness for music; but, after learning it all his life, he has only been able to play *one* tune on the piano: it is a march, which the sultan obligingly plays for everybody, on all occasions. He is also very fond of champagne, which he drinks, under the pretence that the Koran only forbids fermented drinks. The tendency of the recent changes is to abolish the insolent superiority which the Mohammedans have hitherto claimed and exercised over the Christians and those claiming to be Turks, over the Mohammedans of Slavonic and Arab descent; and at the same time to introduce, in place of Mohammedan barbarism, ignorance, and despotic and lawless oppression, the arts, sciences, and regular jurisprudence of Europe.

For some time after the dissolution of the Janizaries, the military power of the empire was contemptible: but there is now a well disciplined army, after the European model, of 120,000 men. The sultan also has a fleet of some ten ships of the line, with the proportion of smaller vessels. Any estimate of the population is merely conjectural; but, for the whole empire, it may be reckoned at 28,000,000, half Mussulmen and half Christians.

Antiquities — Nineveh. — The Turkish empire includes the countries Egypt, Syria, and Mesopotamia, in which the most ancient memorials of the human race exist. It is not long since a great interest was excited by the exploration of the ancient excavated tombs of Petrea, in the neighborhood of Akaba, at the head of the Red Sea. The public curiosity has, of late, been greatly gratified by the researches of Mr. Layard, at the mounds of Mosul, on the Upper Tigris, the seat of the ancient Nineveh. This great city was ruined, and abandoned previously, it is probable, to the date of any existing written composition. Little was known of it, except the incidental notices in the Hebrew Scriptures, and some vague rumors preserved by the Greeks, of its former greatness. When Xenophon with his Greeks passed the mounds of Mosul, 2250 years ago, he found them in much the same state in which they now are; nor until very lately was anything known of them but the tradition that the great city of Nineveh once stood there.

Layard's first visit to Assyria was in 1840; he was accompanied by a single companion, with whom he had travelled through every portion of Syria. He was at once fully persuaded that these mounds contained hidden treasures; and before leaving the country he formed the purpose of thoroughly examining them whenever it might be in his power. The people inhabiting that neighborhood were entirely ignorant of the former history of the country; so completely was every trace of its pride and power buried from view. The idea that they were dwelling above the ruins of a city that was eighteen leagues around it, surrounded by a wall an hundred feet high, and so broad that three



Tomb at Petra.



Interior of a Tomb at Petra.

harios could drive abreast upon it,— a city that contained, besides its gigantic palaces, fifteen hundred towers, each two hundred feet high, — that six hundred thousand human beings ever dwelt upon that plain, now occupied by a few scattered villages— was to them a fabrication of the unbelievers, and a conception dishonorable to the memory of the prophet.

Receiving at last the offer of extensive aid in funds, Mr. Layard returned to Assyria in November, 1845, and entered upon the difficult task of excavating the mounds at Nimroud; he also made less extensive examinations at Kalah Sherghat and Kouyunjik. In April, 1847, he abandoned his efforts, and in 1848 gave to the world the result of his labors, in two volumes, entitled "Nineveh and its Remains." This work thoroughly aroused the public interest in the subject. It was at once perceived that the information which it contained was of great importance and full of fresh illustrations of history, sacred and profane. Col. Rawlinson and Dr. Hincks had made some progress in translating the cuneiform writing found on the disinterred monuments. Mr. Layard's labors had been prematurely abandoned, and there was a general desire that he should be furnished with means to make a thorough examination. Such an arrangement was finally effected with the Trustees of the British Museum. In the meantime Col. Rawlinson and Dr. Hincks pursued their studies; so that while Mr. Layard was uncovering the ruins of the long-lost cities, they were able to confirm his rendering of inscriptions found upon them, and to translate those which a less methodical study did not enable him to understand.

Passing through Armenia to the Lake Wan, Mr. Layard and his party proceeded south to the valley of the Tigris, where they came upon the route of the celebrated retreat of the ten thousand Greeks. Oct. 12, 1849, the party reached Mosul. This was selected as their head-quarters, but detachments of workmen were stationed at several points in the neighborhood. In December following, at Kouyunjik, a façade of an immense building was uncovered; it proved to be the grand entrance to the magnificent palace of Sennacherib. Mr. Layard, in describing this valuable discovery, says: "The façade opened into a wide portal, guarded by a pair of winged bulls, twenty feet long and probably, when entire, more than twenty feet high. Forming the angle between them and the other bulls, were gigantic winged figures in low relief,* and flanking them were two smaller figures, one above the other. Beyond this entrance was a group similar to and corresponding with that on the opposite side, also leading to a smaller entrance into the palace, and to a wall of sculptured slabs; but here all traces of buildings and sculpture ceased, and we found ourselves near the edge of a water-worn ravine.

"Thus, a façade of the south-east side of the palace, forming apparently the grand entrance to the edifice, had been discovered. Ten colossal bulls, with six human figures of gigantic proportions, were grouped together, and the length of the whole, without including the sculptured walls, continued beyond the smaller entrances, was 180 feet. . . . On the great bulls, forming the centre portal to the grand entrance, was one continuous inscription, injured in parts, but still so far preserved as to be legible throughout. It contained 152 lines. On the four bulls of the façade were two inscriptions, one inscription being carried over each pair, and the two being of precisely the same import. These two distinct records contain the annals of six years of the reign of Sennacherib, besides numerous particulars connected with the religion of the Assyrians, their gods, their temples, and the erection of their palaces, all of the highest interest and importance."

It was not, however, until August, 1851, that the mention of any actual event recorded in history, was deciphered upon the monuments. Since that period, many of the leading events chronicled in the Old Testament, have been confirmed by inscriptions found upon the walls of buildings and other objects which have been exhumed. There is no longer any doubt as to the king who reared these monuments. Mr. Layard has actually explored the ruins of the very palace of Sennacherib—a building, by the way, which not only justifies the references which are made in the Bible to the pride and dignity of the

* These and other extraordinary figures, such as winged human-headed lions and bulls, found among the ruins in Assyria, show very clearly from whence Ezekiel and Daniel obtained many of their remarkable illustrations, and are strong confirmations of the Biblical account of the Captivity, which represents them both to have been carried as captives to Babylon, where their books were written.

king for whom it was erected, but suggests some serious reflections as to the comparative skill of ancient and modern architecture.*

Unable to superintend the works during the heat of the summer—all his companions having failed by intermittent fever—Mr. Layard, sick and half-delirious, left for the mountains of the North. Instead however of resting, as the state of his health seems to have required, we find him soon after entering upon a tour which he has thus outlined: "While necessarily absent, I determined to visit those parts of Central Kurdistan not yet explored by European travellers, to devote some days to the examination of the ruins and cuneiform inscriptions in and near the city of Wan, and then to return to Mosul through the unexplored uplands to the south of the lake of Wan, and by such of the Nestorian valleys as I had not seen during my former journey in the mountains. I should then spend the hottest part of the summer in the cool regions of Kurdistan, and be again at Nineveh by September, when the heats began to decline." About the middle of October we find our persevering traveller floating down the Tigris upon a raft, accompanied by several of his companions and some thirty of the best Arabs, whom he had employed in the excavations at Nineveh. Unexpected difficulties presented themselves at Bagdad. The whole country was overrun with Bedouins and other tribes in open revolt against the government, so as to render it unsafe to leave the city. But there was "no such word as fail." Shovels and pickaxes were brought into requisition upon the spot, for the whole Mesopotamian plain is dotted with mounds. His labors were rewarded by discovering several hollow bronze balls, with the name of a king engraved upon them in Babylonian cuneiform characters; a few rude images of the Assyrian Venus, in baked clay, such as are found in most ruins of the same period; a pair of bronze ankle-rings, several terracotta vases and other relics of the same nature. The party reached Babylon early in December. We have not room here for any statement of their labors. Side journeys were made to villages in the Jezireh and the marshes of Niffir, which are described with great spirit. Greatly disturbed by the unsettled state of the country, Mr. Layard and his company returned to Mosul by the land-route upon the western side of the Tigris; having been absent about three months. On the 28th of April, he bade a final adieu to Nineveh.

* A view of the north-eastern façade and grand entrance of Sennacherib's Palace forms the frontispiece of "Babylon and Nineveh." Vide Mr. Ferguson's *Palaces of Nineveh and Persepolis Restored*, where he points out a remarkable analogy between the actual remains of the royal edifices of Nineveh and what is recorded of the temple and palaces of Solomon. It appears that they not only possessed the same general architectural characteristics, but were constructed of substantially the same kind of materials,—the king of Nineveh employed men, precisely as Solomon did, to cut cedar wood in Mount Lebanon, etc.



Turkish Coffee Room.

XVI. SYRIA.

Climate. The climate of the mountainous tract on which Jerusalem is situated, differs from that of the temperate parts of Europe and America, more in the alternation of wet and dry seasons than in the degrees of temperature. The variations of rain and sunshine, which in the west exist throughout the whole year, are in Palestine confined chiefly to the latter part of the autumn and winter, while the remaining months enjoy almost uninterruptedly a cloudless sky. The autumnal rains usually begin in October and November; not suddenly, but by degrees, which gives opportunity for the husbandman to sow his wheat and barley. The rains come mostly from the west and south-west, continuing for two or three days at a time, and falling especially during the night. Then the wind shifts to the north or east, and several days of fine weather succeed. During November and December the rains fall heavily, and continue more or less copiously through the winter. Snow often falls in Jerusalem in January and February, to the depth of a foot or more, but does not lie long. The ground never freezes. March is rainy, but after this month rain is rare. The whole period from October to March is one continued season of rain, without any regularly intervening term of prolonged fair weather. Unless, therefore, there has been some change in the climate since the times of the New Testament, the "early and the latter rains," for which the husbandman waited with longing, seem rather to have implied the first showers of autumn, which revived the parched and thirsty earth, and prepared it for the seed—and the later showers of spring, which continued to refresh and forward both the ripening crops and the vernal products of the fields.

During the whole winter, the roads, or rather tracks, in Palestine, are muddy, deep, and slippery, so that the traveller, at that season, suffers the utmost discomfort and inconvenience. When the rains cease, the mud soon disappears and the roads become hard, though never smooth. Whoever, therefore, wishes to profit most by a journey in Palestine, will take care not to arrive in Jerusalem earlier than the end of March. During April and May, the sky is usually serene, the air mild and balmy, and the face of nature, after seasons of ordinary rain, still green and pleasant to the eye. Showers occur occasionally, but they are mild and refreshing. In ordinary seasons, from the cessation of the showers of spring until their commencement in October or November, rain never falls, and the sky is usually serene. If during the winter there has been a sufficiency of rain, the husbandman is certain of his crop, and is also perfectly sure of fine weather for the in-gathering of his harvest. The harvest upon the mountains ripens later than in the plains of the Jordan and on the sea-coast. The barley harvest precedes the wheat harvest by a week or fortnight. The wheat is harvested early in June, about Hebron; at Jericho, about a month earlier. The first grapes ripen in July, and from that time until November, Jerusalem is abundantly supplied with this delicious fruit. The general vintage takes place in September. In autumn the whole land becomes dry and parched, the cisterns are nearly empty, the few streams and fountains fail, and all nature, vegetable and animal, looks forward with longing to the return of the rainy season.

Population and Inhabitants. The Christian population of Syria and Palestine embraces about 500,000 souls. These are divided into the following eight sects; namely, Greeks, Greek Catholics, Maronites, Syrians or Jacobites, Syrian Catholics, Armenians, Armenian Catholics, and Latins.

I. Greeks. These are the most numerous of the Christian sect. They are so called in Syria merely because they profess the Greek faith and belong to the Greek church. There are now no traces, either in their spoken language or in the language of their public services, of any national affinity with the Greek people. They are Arabs, like the other Arabs of the country. Nor, on the other hand, are there any indications of a Syriac origin in any part, with the exception of Malula and its vicinity, or Anti-Lebanon, north of Damascus. In this region, the dialect now spoken, as well as the old church-books, long since indeed disused, show that the inhabitants are originally of the Syriac race. With this exception, the language of the Greek Christians of Syria, both as spoken and as used in their churches, is Arabic. The spoken Arabic differs so little from the language of books, that all books written in a plain style are intelligible to the common people. Hence it will be seen that these Christians enjoy the great privilege of having their religious worship conducted in a language which they understand, a privilege

denied to those of the same church who speak the Greek tongue, and to every other Christian sect in Western Asia, except their countrymen and relatives, the Greek Catholics. Perhaps, however, it should be added that their church-books contain many untranslated technical terms from the Greek, and that on many occasions, certain portions of the services, or even the whole, are sometimes said in Greek. This is most frequently the case when the high clergy officiate. It is an important fact that nearly, if not quite, all the bishops of this sect are Greeks by birth, and foreigners in the country—a circumstance which shows how great an influence the see of Constantinople exerts in the ecclesiastical affairs of Syria. These bishops rarely learn to speak the Arabic language, which, of course, they cannot preach, and their medium of intercourse with the people in conversation, is very imperfect. There is, in consequence, little of that unity of national feeling between the bishop and his flock, which might lead to national improvement, especially in education. A Greek bishop from abroad, able only to stammer Arabic, and perhaps not reading it at all, and regarding it only as a barbarous dialect, (a feeling which is inherent in almost every Greek, by birth,) cannot be expected to take much interest in promoting a system of national education among his flock, and nothing of the kind has yet been done. There is no seminary in the country for the education of the Greek clergy. The parish priests are taken from the ranks of the common people, with no other preparation for the sacred office than the ceremony of ordination. They are generally selected, each one by the parish which he is to serve, from among themselves; and the usual ordination-fee to the bishop rarely fails to secure the administration of that rite according to their wishes. These priests are universally married, and differ not in character from the rest of the people, frequently pursuing the same occupation as before they assumed the ecclesiastical character. They are often the schoolmasters of their villages, if that can be called a school which consists of some half a dozen boys coming together at irregular hours, and repeating an imperfect lesson, while the teacher is working at his trade.

The doctrines and ceremonies of the Greek church in Syria are the same as in other countries. In its ecclesiastical organization the church is divided into the two patriarchal dioceses of Antioch and Jerusalem, an arrangement which has existed ever since the fifth century. These are nominally both independent of the Greek patriarch of Constantinople, but are really to a great extent under his control. The head of the diocese of Antioch, is ordinarily styled "Patriarch of Antioch and of all the East." The Syrian bishoprics under his jurisdiction, are the following: 1. Beirout, which is the largest, and its occupant is styled, also, "Bishop of Phenicia on the coast; 2. Tripolis. 3. Akkar; 4. Laodicea; 5. Hamah; 6. Hems or Emessa; 7. Saidaraya and Melula; 8. Tyre. Aleppo formerly belonged to the patriarchate of Antioch; but it was severed from it not many years ago, in consequence of a dissension between the Greeks and Greek Catholics of that day, and has ever since remained under the ecclesiastical government of Constantinople. The Patriarch of Antioch usually resides at Damascus, and from this circumstance is ordinarily spoken of by the people as the Patriarch of Damascus. He is a Greek by birth.

The jurisdiction of the patriarchate of Jerusalem begins at Acre and extends over the whole of Palestine, both east and west of the Jordan. The following are the bishoprics subject to it: 1. Nazareth; 2. Acre; 3. Lydda; 4. Gaza; 5. Sabaste; 6. Nablous; 7. Philadelphia; 8. Petra. Of these bishops, only the bishop of Acre resides within his own see; all the rest remain shut up in the convents at Jerusalem. The patriarch himself is also a non-resident, living at Constantinople and never visiting his diocese. His place is represented, and the business of the patriarchate transacted, by a board of bishops at Jerusalem.

II. *Greek Catholics.* The sect of Greek Catholics had its origin in a secession from the Greek church in Syria, which was brought about by Roman Catholic influence about a century ago. Until recently, this sect existed only in Syria, but has now spread into Egypt. The Greeks who have elsewhere submitted to the pope, have generally become amalgamated with the Latin church. The Greek Catholics of Syria, on the contrary, are a sect by themselves, constituting an oriental papal church. They take, indeed, the occidental view of the dogma of the procession of the Holy Spirit, believe in purgatory and the pope, eat fish in Lent, and keep a smaller number of fasting days than the Greeks; but otherwise they subjected themselves to few changes in passing from one jurisdiction to the other. They still enjoy the same privileges as their country-

men of the Greek church, in having their religious services performed in their native Arabic tongue. They observe the oriental calendar, receive the sacrament of the Lord's supper in both kinds as formerly, and their priests are still allowed to marry. This, however, is not done so universally as among the Arab Greek clergy. They have long had their own patriarch, but until the Egyptian rule, he uniformly resided in Mount Lebanon, where the local authorities have for many years been under papal influence. He has since removed to Damascus. The high clergy of this sect are mostly Arabs by birth, and at the same time educated at Rome. They thus unite a natural attachment to their countrymen with some degree of European cultivation, and the result is a certain elevation of their sect. The patriarch has also established a college for teaching different languages and branches of science, which, however, seems as yet to have accomplished very little. The sect embraces a large proportion of the most enterprising and wealthy Christians in Syria, and possesses great influence. Especially do its members occupy more than their due proportion of offices under the government. A convent belonging to the Greek Catholics at Esh-Shuweir in Mount Lebanon, has for many years possessed an Arabic printing-press, which supplies their own church, and also the Greeks, with most of their church books.

III. *Maronites*. This sect furnishes decisive evidence of a Syriac origin. Its ecclesiastical language is wholly Syriac, though none now understand it, except as a learned language. The Maronites also not unfrequently write Arabic in the Syrian character. They acknowledge no affinity with any other sect in the country, except through a common relationship to the pope. They are exclusive and conceited in the notion of their unparalleled orthodoxy, and are not much liked by their neighbors, even of the papal church, being generally accused of narrow-mindedness. The Maronites are characterized by an almost unequalled devotedness to the see of Rome, and the most implicit obedience to their priests. It may be doubted whether there is to be found anywhere else, a people who have so sincere and deep a reverence for the pope as the Maronites of Syria. Yet they have their own distinct church establishment, and also some usages which are not tolerated in the papal church in Europe. They follow, indeed, the occidental calendar, observe the same rules of fasting as the European papists, and celebrate in the same manner the sacrament of the Lord's supper. But they have some saints of their own, and especially their patron saint, Mar-Maron, not elsewhere acknowledged in the papal church. And every candidate of the priesthood, who is not already under the vow of celibacy, is allowed to marry before ordination; so that most of their parish clergy are actually married men. They have many bishops, and at their head, a patriarch, who styles himself "Patriarch of Antioch." His usual residence is the convent of Kanobin, on Mount Lebanon, back of Tripolis.

The Maronites are found in cities and large towns as far north as Aleppo, and as far south as Nazareth. But they are at home as cultivators of the soil only in Mount Lebanon. This mountain they inhabit, more or less, throughout its whole range. But their stronghold is Kesrawan. Of this tract, they are almost the only inhabitants. Throughout the whole of the district governed by Emir Beshir they are more numerous than any other sect. The balance of power which was formerly kept up between them and the Druses, is now entirely destroyed; the latter having become far inferior in numbers and strength. This is the result of the conversion of the ruling family of Emirs, the house of Shehab, who were formerly Mahometans, to the Maronite faith. Their example had great influence, and has been followed by the two largest branches of another family of Emirs of Druse origin; so that now almost all the highest nobility of the mountain are Maronites.

In the elementary instruction of the common people, the Maronites are quite as deficient as the other Christian sects in the country. But for a select number, and especially for clerical candidates, the Patriarch has established a college at Ain Warkah, in Kesrawan, which takes a higher stand than any other similar establishment in Syria. It deserves great praise for the thorough manner in which it initiates at least some of its pupils into the knowledge of their native Arabic tongue. They also study Syriac, Latin and Italian.

IV. *Syrians or Jacobites*. The same evidence of a Syrian origin which exists in the case of the Maronites is found also among the Jacobites. Though they now speak, in Syria, only Arabic, yet their church-service is in Syriac. Indeed, the common name by which they are known in the country is simply "Syrians." The epithet Jacobite, it

is not customary to add, as there are in the country no Syrians of the orthodox Greek rite, from whom it is necessary to distinguish them; and the seceders to the papal church are sufficiently designated by the term Catholics. The number of the Jacobites in Syria is very small. A few families in Damascus and in Nebk, the village of Sudal, and a part of the village of Kurvetein, a small community in Homs, with a few scattered individuals in three or four other places, constitute the whole sect. They are subject to the Jacobite patriarch, who resides in Mesopotamia, and from him they receive their bishops. The Jacobites are looked upon by all other sects in the country as heretics, and as such, and because they are few and poor, they are generally despised.

V. Syrian Catholics. These bear the same relation to the Jacobites, that the Greek Catholics do to the Greek church. They are Romish converts, who still retain the oriental rite, and the use of Syriac in their churches. The community in Aleppo has long existed in its present relation to the pope. But the Syrian Catholics of Damascus and of Rasheiya in Jebel-esh-Sheikh, are recent converts. Except in these places, there are not known to be any other communities of this sect among the people of Syria. In Mount Lebanon there are two or three small convents inhabited by Syrian Catholic monks.

VI. Armenians. The Armenians in Syria are properly to be regarded as foreigners. Yet they have been there so long, that the country has become their home; and they must not be overlooked in speaking of the native Christian sects. They are found only as merchants and mechanics in cities and large towns, and nowhere as cultivators of the soil. Their number is very small. Their ecclesiastical establishment is distinct from that of Constantinople. At their head is a patriarch, who is styled "Patriarch of Jerusalem."

VII. Armenian Catholics. These are seceders from the Armenians to the papal church. They adhere still to the oriental rite, and have changed few of their original ceremonies or dogmas. They are few in number, but have their patriarch, who resides in a convent at Bzummar, on Mount Lebanon.

VIII. Latins. Native Roman Catholics of the occidental rite are very few in Syria. They exist only in connection with the convents of Terra Santa at Jerusalem, Bethlehem, St. John in the Desert, Nazareth, and a few other places. They are ecclesiastically dependent on the convents, and form parishes under the immediate charge of the monks. Their language is Arabic.

Protestants. Protestants do not exist in Syria as a native sect, nor in any other part of the Turkish empire, nor are they, as such, tolerated. The government recognises and tolerates certain known sects of Christians; and the members of these are allowed to transfer their relations from one sect to another whenever they choose. But Protestants are not among these sects, and therefore no one is legally allowed to profess protestantism. It is by the operation of this principle of the Turkish government, and by this alone, that the rise of protestantism in Syria is checked. Very many persons, from time to time, show a strong disposition to throw of the dominion of their priests, and claim their right to the liberty of the gospel. Probably, in 1839, nearly the whole nation of the Druses would have declared themselves Protestants, and put themselves under protestant instruction, could they have had secured to them, in that profession, the same rights as are enjoyed by the other Christian sects.

Mahometans and other Sects. The Mahometans, or Moslemin, who constitute the lords of the country and the mass of the population, are Sunnites, of the orthodox faith. The *Metanileh* have their chief seat in the district Belad Besharah. They are of the sect of Ali, and their faith is kindred to that of the Shiites of Persia. They are here regarded as heretics. Their chief practical characteristic is the custom neither to eat nor drink with those of another religion. The Druses are at home upon Mount Lebanon, but dwell also as far south as the district of El-Jebel, west of Safed, in some parts of Hauran, and around Damascus. They were formerly masters of the country of Mount Lebanon and the adjacent coast, but are now surpassed in numbers and power by the Maronites. The Druses appear to have sprung up out of one of the many Mahometan sects (the Karmathians) of the centuries before the crusades; and the insane Hakim, Caliph of Egypt, is regarded as their deity. They keep their religious tenets and practices secret; though they have formerly professed themselves to be Mahometans. They certainly are not Christians, and from time to time they make furious attacks on their neighbors of that faith.

The *Nasairiyeh* are also regarded as the offspring of one of the early Mahometan sects, probably the Karmathians. They, too, keep their religion a secret, and often conform externally to the faith of those by whom they are surrounded, whether Mussulmen or Christians. Their chief seat is the range of mountains extending on the north of Mount Lebanon towards Antioch; but they are found scattered in other places. The accounts from them are very imperfect.

The *Ismailites* were originally a religious-political subdivision of the Shiites, and are now the comparatively feeble remains of the people who became too well known in the time of the crusades, under the name of the Assassins. They likewise possess a secret mystical religion, and still have their chief seat, as formerly, in the castle of Masyad, on the mountains west of Hamah.

Convents. One of the most remarkable features of Mount Lebanon, is its multitude of convents. They are seen perched upon its rocks and scattered over its sides in every direction. Even a glance at the map is sufficient to excite astonishment. While Monasticism has declined, and almost gone out of date, in so many other countries, it continues here to flourish in its pristine vigor. The numerous convents are many of them, small establishments, but they are well filled with monks, and abundantly endowed. There are also convents of nuns. The greatest number belong to the Maronites, but all the other sects above-mentioned, except the Jacobites, have at least one convent, and most of them several.

All the convents in and around Jerusalem, Bethlehem, Ramlah, Jaffa and other cities, whether Greek, Armenian or Latin, belong entirely to foreigners, and are occupied by them. Convents of native monks are very rare, except in the district of Mount Lebanon.

Formerly all the Christians of Jerusalem paid their taxes to the government through their respective convents; that is, the monasteries were the collectors of the taxes—a system which gave opportunity for great extortion on the part of the convents. The Egyptian government abolished this system. No *firdek*, or ordinary capitation tax, is paid by any of the inhabitants of Jerusalem, whether Mahometan, Christian or Jew, because it is regarded as a sacred place, and because of the poverty of the people. The inhabitants of the villages pay the *firdek*. Mehemet Ali also abolished all the tolls and tribute which were formerly so oppressive to the pilgrims and travellers.

The taxes paid to the government by the rural population are as follows: one piastre (about five cents) for every ewe and she goat; ten piastres for every ass; twenty for every horse and mule; thirty for every camel and seventy-five for every ox. One piastre for every olive-tree, and thirty-five for each acre of fig-trees or vineyards. As fast as men are taken away for soldiers, the capitation tax is divided among the remainder, so that the government takes care to lose nothing.

Of all the native population of this country, the Arabic is the vernacular tongue, as much so as the English in London, or the French in Paris. The Jews are, for the most part, not natives of the country, and speak a corrupt medley of tongues among themselves. Among other foreigners, the Greek, Armenian, and Italian languages, are also found; but whoever desires to gain access to the common people, whether Mahometans or Christians, can do it only through the medium of the Arabic.

Of the Jews now resident in Palestine, the greater number are such as have come up to the land of their fathers, in order to spend the remainder of their lives and die in one of the four holy places, Jerusalem, Hebron, Tiberias or Safed. Those in Jerusalem desire to lay their bones in the valley of Jehoshaphat. They come hither from all parts of the Levant, and especially from Smyrna, Constantinople and Salonica, in which cities there are many thousands of this people. The Jews of Jerusalem are mostly very poor and wretched. A considerable amount of money is collected for them by their emissaries in different countries, but as it comes into the hands of the Rabbins, and is managed by them without responsibility, it is administered in a very unfaithful manner, and serves chiefly as a means of increasing their own influence over the conduct and consciences of their poor brethren. Most of the Jews in Palestine appear to be of Spanish or Polish origin, very few are from Germany or can speak the German language.

The very motive which leads them thus to return to the Land of Promise, shows their strong attachment to their ancient faith; they are in fact the most bigoted of all their sect, and the least accessible to the labors of Christian missionaries.

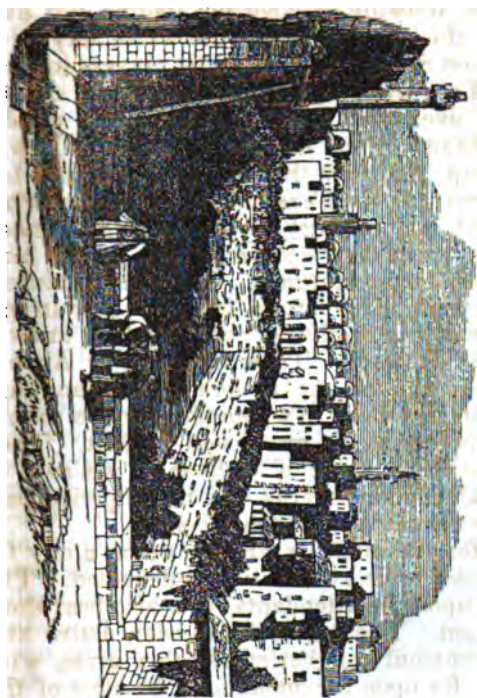
At Nablus or Nabulus are the Samaritans, a singular and feeble remnant of an ancient people, who to this day have survived the storms of ages and of adverse influences upon

their native soil. Their numbers are about one hundred and fifty. Their physiognomy does not differ essentially from that of the other natives of the country. They keep the Saturday as their Sabbath, with great strictness, allowing no labor nor trading, not even cooking nor lighting a fire, but resting from their employments the whole day. On Friday evening they pray in their houses, and on Saturday have public prayers in their synagogues, at morning, noon and evening. They meet also in the synagogue on the great festivals, and on the new moons, but not every day. The law is read in public, not every Sabbath day, but only upon the festivals. Four times a year they go up to Mount Gerizim, in solemn procession, to worship; and then they begin reading the law as they set off, and finish it above. The seasons are, the Feast of the Passover, when they pitch their tents on the mountains all night, and sacrifice seven lambs at sunset; the day of Pentecost; the Feast of Tabernacles, when they sojourn here in booths built of branches; and lastly, the great day of Atonement, in autumn. They still maintain their ancient hatred against the Jews, accuse them of departing from the law in not sacrificing the passover, and in various other points, as well as of corrupting the ancient text, and avoid all connection with them except in trade. Their language is Arabic. They have many books of prayers, commentaries, and the like, in their ancient language and character. They are very civil to Christian travellers, to whom they show a manuscript said to be 3,460 years old, but which appears to be much less ancient. They possess also manuscripts of a work professing to be the Book of Joshua; it is a sort of chronicle extending from Moses to the time of Alexander Severus, and in the period parallel to the Hebrew book of Joshua, has a close resemblance to that book.

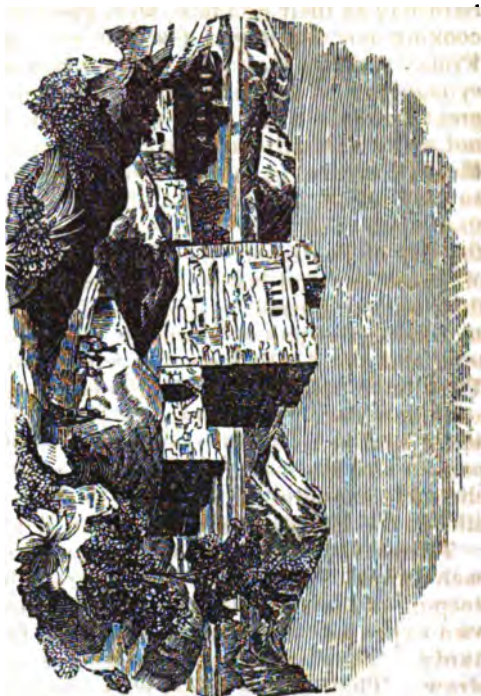
Travelling. The cost of horses and mules for travelling is about a dollar a day for each animal. If at any time the traveller chooses to lie by, one half is deducted. The keeping of the animals during the journey falls upon the attendants, who also bear their own expenses. Nothing extra is paid for the men. The horses are slender, active and hardy. They are fed usually only at night, commonly on barley or other grain, with straw. Their gait is a fast walk, never a trot; for upon the mountains the state of the roads renders this for the most part impossible. They are sure-footed and exceedingly sagacious in picking their way among the rocks, being nearly equal to mules in this respect. The horses of the Sheiks and wealthy individuals are sleek and well-fed, and remarkable for their activity and fleetness. The caparison of the animals for hire is not very splendid. Arab riding-saddles with stirrups are sometimes given, but they are usually narrow and hard. The common pack-saddles are better; they are very long and broad, stuffed with a large mass of straw, and cover almost the whole of the animal.

The American consular agents in the Syrian cities are appointed by, and dependent on, the American consul at Beyrout. They are usually native Christians of wealth and influence, with whom it is a privilege to obtain the appointment, as it secures to them protection and exemption from many of the ordinary exactions of their own government. In return, they regard the few Americans who may happen to visit their places of residence as peculiarly entitled to enjoy their hospitality, and consider it a duty and privilege to entertain them at their own houses. But it is a part of oriental hospitality never to leave a guest alone by day, so that the traveller is sometimes greatly incommoded by what is meant for kindness and respect. Neighbors and friends come in to pay their civilities to the distinguished visitor, and the weary traveller is sometimes disposed to wish his host a little less kind and respectful.

Cities and Towns.—Jerusalem. From the very full and minute description of this city by Dr. Robinson, we make the following extracts: "On entering the gates of Jerusalem, apart from the overpowering recollections which naturally rush upon the mind, I was, in many respects, agreeably disappointed. From the descriptions of Chateaubriand and other travellers, I had expected to find the houses of the city miserable, the streets filthy, and the population squalid. Yet the first impression made upon my mind was of a different character, nor did I afterwards see any reason to doubt the correctness of this first impression. The houses are in general better built, and the streets cleaner than those of Alexandria, Smyrna, or even Constantinople. Indeed, of all the oriental cities which it was my lot to visit, Jerusalem, after Cairo, is the cleanest and most solidly built. The streets, indeed, are narrow and very rudely paved, like those of all cities in the East. The houses are of hewn stone, often large, and furnished with small domes on the roofs. These domes seem to be not merely for ornament, but are intended, on account of the scarcity of timber, to aid in supporting and strengthening the otherwise



Bethesda.



Jericho.



Akaba.

flat roofs. There is usually one or more over each room in a house, and they serve also to give a greater elevation and an architectural effect to the ceiling of the room which rises within them. The streets, and the population that throngs them, may also well bear comparison with those of any other oriental city; although if one seeks here or anywhere in the East, for the general cleanliness and thrift which characterize many cities of Europe and America, he will, of course, seek in vain. In our walks through the city and its environs we were struck with the comparatively few people we met, and the indifference with which they seemed to regard us and our movements. In the city itself, the bazaars were usually thronged, so that it was sometimes difficult to make one's way through them. In the larger streets, also, there were commonly many persons passing to and fro; but all the other streets were comparatively solitary. Outside of the city, a few peasants with their asses, wending their way to or from the gates—a few shepherds watching their flocks on the side of Mount Olivet—a few women with their water-skins, around the fountains in the valley of Jehoshaphat, and occasionally Moslem females, veiled in white, sitting or strolling among the tombs of their people;—these were ordinarily the only signs of life and activity which the stranger could perceive as he wandered around the former 'city of the Great King.'

Jerusalem has few manufactures and no exports, except the articles carried away by the pilgrims. The manufacture of soap is one of the principal. For this there are nine establishments, which appear to be of long standing. The mounds of ashes which they have thrown out at some distance from the city, have almost the appearance of natural hills. At Easter, large quantities of perfumed soap are sold to the pilgrims. Oil of sesame is made to a considerable extent; for this, there are nine presses. There is also a large tannery for leather. All these are private property, and in the hands of Mahometans. The chief articles manufactured by the Christians, are rosaries, crucifixes, models of the Holy Sepulchre, and the like, carved in olive-wood, mother of pearl, and sometimes the black, shining stone, found near the Dead Sea. The concourse of pilgrims at Easter converts the city into a sort of toy-shop or fair; immense quantities of these tokens are carried away, after having been consecrated by the priests. Merchants also resort hither at that season, from Damascus and other places, bringing goods of various kinds, which find a ready sale among the pilgrims. The annual Easter fair of Jerusalem is relatively not much less important than those of Leipzig and Frankfort.

The population of Jerusalem has been variously estimated, according to the fancy of different travellers, from 15,000 up to near 30,000. No doubt the number has varied much at different times; and entire certainty can never be expected under an oriental government, where a regular census is unknown. Until within the last few years there appears to have been no data whatever, accessible to a traveller, on which to found a calculation. The more common estimate of late years, among the Franks, has been the round number of 15,000. More accurate researches considerably reduce this number, and the entire population may be stated at 11,500, of whom 4,500 are Mahometans, 3,500 Christians, 3,000 Jews, and the remainder miscellaneous. The inhabitants of the city dwell in separate quarters, according to their religion, Christian, Jewish, and Mahometan. The Christians are of four classes, Greeks, Latins, Armenians and Copts. They have their own separate chapels in the church of the Holy Sepulchre, and the three former have also convents or dwellings within the walls of the church. A deep hatred exists among these possessors of the Holy Sepulchre towards each other, particularly between the Greeks and the Latins, in whom it seems to be irreconcilable, and gives birth to constant intrigues and discords. The Christians of the Greek rite are mostly native Arabs, having their own native priests, and enjoying the privilege of hearing the service in their own mother tongue, the Arabic. Their numbers are about 2,000. They have eight convents for men, used chiefly for the accommodation of pilgrims; and five convents for nuns in the city, with four other religious establishments in the neighborhood. The Christians of the Latin rite are also native Arabs, knowing no other language than the Arabic; they are said to be descended from Catholic converts of the times of the crusades. They are about 1,100 in number, and live partly by carving crosses and beads for rosaries, and partly on the charities of their convent. This convent contains between 40 and 50 monks, half Italians and half Spaniards, and takes the precedence of all the other Catholic monasteries of the East.

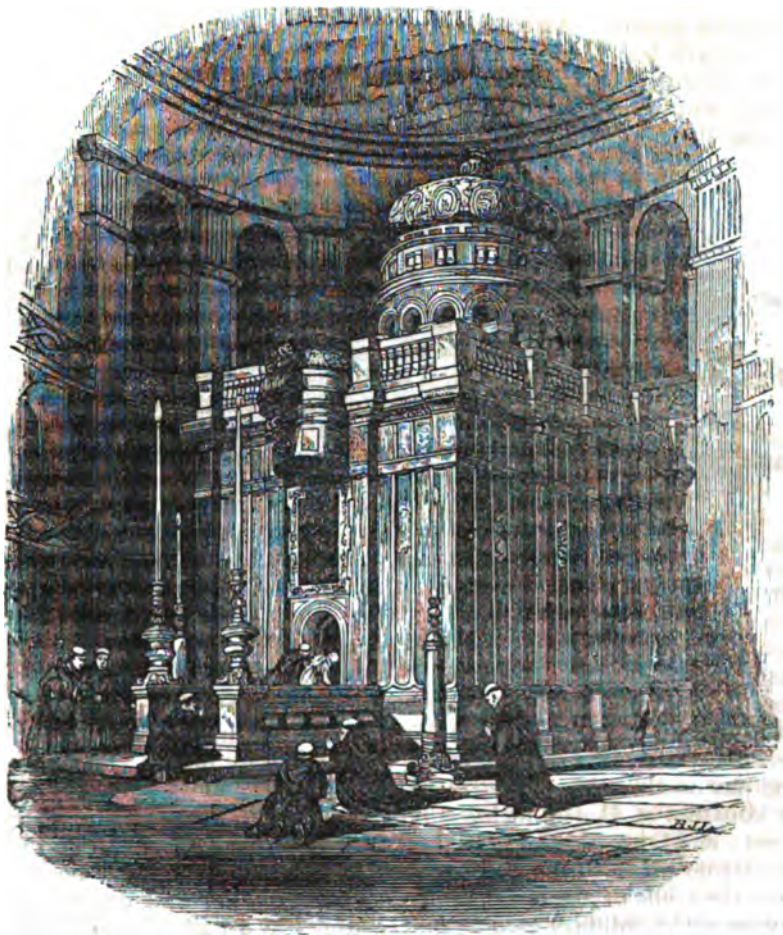
The Armenians have a large monastery on Mount Zion, said to be the wealthiest in the city. They have also the splendid church of St. James, and a convent of nuns, with a

smaller convent out of the city. The Armenians are, for the most part, not natives; and those not attached to the convents are usually merchants. The Coptic Christians consist only of monks, who occupy a single convent. There is also a convent of Abyssinians.

The bazaars are situated in the middle of the city, on and near the principal street. They consist of two or three narrow lanes, roofed over, with open shops each side, occupied by merchants and sedentary artisans. The markets are supplied by the peasants from the neighboring villages; there are few gardens round the city. Wheat appears not to grow well in the neighborhood, but is brought from other quarters.

The country around Jerusalem is all of lime-stone formation, and not particularly fertile. The rocks everywhere come out above the surface, which in many parts is also thickly strewn with loose stones; and the aspect of the whole region is barren and dreary. Yet the olive thrives here abundantly, and fields of grain are seen in the valleys and level places. Neither vineyards, nor fig-trees flourish on the high ground around the city; though the latter are found in the gardens below Siloam. The main dependence of Jerusalem for water is on its cisterns, and this has probably always been the case. Almost every house in the city of any size, has one or more cisterns excavated in the soft lime-stone rock on which the city is built.

The account of Jerusalem, by Bayard Taylor, who visited it in 1852, is less favorable. The following paragraph, from one of his letters, gives a dark picture of the present condition of the Holy City:—



Holy Sepulchre.

"Jerusalem, internally, gives no impression but that of filth, ruin, poverty, and degradation. There are two or three streets in the western or higher portion of the city, which are tolerably clean, but all the others to the very gates of the Holy Sepulchre, are channels of pestilence. the Jewish quarter, which is the largest, so sickened and disgusted me, that I should rather go the whole round of the city walls than pass through it a second time. The bazaars are poor, compared with those of other Oriental cities of the same size, and the principal trade seems to be in rosaries, both Turkish and Christian, crosses, seals, amulets, and pieces of the Holy Sepulchre. The population, which may possibly reach 20,000, is apparently Jewish, for the most part; at least, I have been principally struck with the Hebrew face, in my walks. The number of Jews has increased considerably within a few years, and there is also quite a number who, having been converted to Protestantism, were brought hither at the expense of English Missionary Societies for the purpose of forming a Protestant community."

XV. PERSIA.



The Koords.

THE Kingdom, founded by Shah Ismael in 1502, and which embraced almost the whole extent (Mesopotamia excepted), anciently included under the name of Persia, after having lasted for above two hundred years, was broken to pieces by the invasion of the Afghans, and has continued in a very divided, disordered and distracted state, ever since. The present kingdom of Persia, includes only the western half of the country, and is in a condition very similar to that of Asiatic Turkey, declining in wealth and power, plundered by wandering tribes of shepherd-robbers, who range over all the open country and even approach the walls of the cities, rendering all travelling and commerce unsafe except in caravans with a military escort; and scourged by a barbarous military despotism, ignorant and bloody.

The mountains and deserts of Eastern Persia are at present possessed by various clans of Afghans and Beloochees over whom there is no steady and permanent government. In 1839, the English from India, under the idea that Russia was obtaining an influence over the Afghans, that might be dangerous to their Indian empire, took advantage of one of those struggles for the name of supreme ruler, with which that country is continually distracted, to march an army into it under pretence of vindicating the right of one of the competitors for the throne. They penetrated the mountain passes, and first unveiled this country to European eyes. After some hard struggles, they got possession of Cabul, Kandahor, Kelut, and the other principal cities and fortresses, and all the tribes of the country apparently submitted to their authority. But in the winter of 1841-42, the Afghans, who hated the English not only as conquerors but as infidels, assembled their forces, laid seige to Cabul, cut off the supplies of provisions, and finally compelled the occupying army to evacuate the city under a convention, and commence a retreat in the dead of a winter not less severe than our own. The Hindu soldiers of whom the English army was principally composed, suffered greatly from a cold to which they were wholly unaccustomed. The convention was broken. The English army was attacked in the passes and was cut off almost to a man. The next spring, the English marched troops into the country to relieve the garrisons and occupying forces besieged or blockaded there, after which they evacuated and abandoned the country.

The Nestorians. One of the most interesting discoveries of modern travellers has been that relative to the country of the Nestorian Christians, in the northern part of the kingdom of Persia. The tract of country in which they reside, lies between the 36th and 38th degrees of north latitude, a little to the south of the lake of Van. This region, before little known to the rest of the world, was visited a few years since by Dr. Asahel Grant, and Messrs. Smith and Dwight, under the patronage of the American Board of Commissioners for Foreign Missions. A narrative of his researches in that country was published during the past year by Dr. Grant, which affords many particulars of high interest, respecting the people whom he visited. This traveller is of opinion that the Nestorians are the descendants of the lost tribes of Israel. We make the following extracts from Dr. Grant's work:

"The province of Ooroomiah, in which the labors of the mission have thus far been prosecuted, comprises an important part of Ancient Media, and is situated in the north-western part of the modern kingdom of Persia. It is separated by a lofty chain of snowy mountains from Ancient Assyria or Central Koordistan on the west; while on the east the beautiful lake extends about eighty miles in length and thirty in width. The water of this lake is so salt that fish cannot live in it; its shores are enlivened by numerous water-fowl, of which the beautiful flamingo is most conspicuous, and sometimes lines the shore for miles in extent.

A plain of exuberant fertility is enclosed between the mountains and the lake, comprising an area of about five hundred square miles, and bearing upon its bosom no less than three hundred hamlets and villages. It is clothed with luxuriant verdure, fruitful fields, gardens, and vineyards, and irrigated by considerable streams of pure water from the adjacent mountains. The landscape is one of the most lovely in the East; and the effect is not a little heightened by the contrast of such surprising fertility with the stern aspect of the surrounding heights, on which not a solitary tree is to be seen; while in the plain, the willows, poplars, and sycamores by the water-courses, the peach, apricot, pear, plum, cherry, quince, apple, and vine, impart to large sections the appearance of a rich, variegated forest.

Near the centre of this plain stands the ancient city of Ooroomiah, containing a population of about twenty thousand souls, mostly Mohammedans, and enclosed by a fosse and wall of nearly four miles in circuit. At a little distance, on the east of the city, an ancient artificial mound rises to the height of seventy or eighty feet, and marks the site, as it is said, of the ancient shrine or temple, where, in days of yore, the renowned Zoroaster kindled his sacred fires, and bowed in adoration to the heavenly hosts.

The climate is naturally very delightful; but, owing to local causes, a poisonous miasma is generated, occasioning fevers and the various diseases of malaria, to which the unacclimated stranger is specially exposed; and the mission families have suffered much from this cause.

As we approached the village of Dûree, after a toilsome ride of seven hours over the

rough mountain passes, we were hailed by several of the Mountain Nestorians from the independent district of Tiýârý, who demanded who we were, what we wanted, whither going, &c.; and the demand was repeated by each successive party we passed, till finally the cry seemed to issue from the very rocks over our head, 'Who are you? whence do you come? what do you want?' A cry so often repeated, in the deep Syriac gutturals of their stentorian voices, was not a little startling: and then their bold bearing, and a certain fierceness of expression, and spirited action and intonation of voice, with the scrutinizing inquiry whether we were Catholics or bad men whom they might rob, (as one inquired of our Nestorian guide) bereft my guide of the little courage that had sustained him thus far; and he manifested so much real alarm that I yielded to his earnest request, and dismissed him as soon as we reached the house of the bishop, who assured me that his presence was no longer desirable.

The people soon satisfied themselves of my character and friendly intentions, and, finding that I spoke their language, seemed to regard me as one of their own people, and gathered around me in the most friendly manner, but without that familiar sycophancy so common among the Christian subjects of Persian and Turkish dominion.

The attentive old bishop took my hand and guided it to a plain stone cross which lay upon the altar, supposing I would manifest my veneration or devotional feelings, after their own custom, by pressing it to my lips. I must confess that there is something affecting in this simple outward expression, as practised by the Nestorians, who mingle with it none of the image worship, or the other corrupt observances of the Roman Catholic Church.

Iron mines, under the control of the Koordish chief, are wrought by the Nestorians near this place, and lead mines are numerous in the Nestorian country beyond.

Düree is nominally subject to the Turkish government, and immediately responsible to the Koordish chief of Berwer, a sub-chief of Amâdieh.

A high range of mountains still separated me from the proper country of the independent Nestorians. At Mósul I was strongly advised not to venture into their country until I should send, and obtain an escort from the patriarch; but, after mature consideration and free consultation with the bishop, I resolved to proceed at once; for by this course I might gain the good-will of the Nestorians from the confidence I evinced in them, and also save eight or ten days' delay; a consideration of some importance on the eve of winter among these lofty mountains. The bishop volunteered to send an intelligent young Nestorian with me, and two others went to bring back the mules from Lezân, which is the first village of the independent tribe of Tiýârý, the nearest and by far the most powerful of the mountain tribes.

Thus equipped in native style, I set off on the 18th, at an early hour in the morning: and, after a toilsome ascent of an hour and a half, I found myself at the summit of the mountain, where a scene indescribably grand was spread out before me. The country of the independent Nestorians opened before my enraptured vision like a vast amphitheatre of wild, precipitous mountains, broken with deep, dark-looking defiles and narrow glens, into few of which the eye could penetrate so far as to gain a distinct view of the cheerful, smiling villages which have long been the secure abodes of the main body of the Nestorian Church. Here was the home of a hundred thousand Christians, around whom the arm of Omnipotence had reared the adamantine ramparts whose lofty, snow-capped summits seemed to blend with the skies in the distant horizon.

The only person I had ever seen from this remote tribe was a young Nestorian, who came to me about a year before, entirely blind. He said he had never expected to see the light of day, till my name had reached his country, and he had been told that I could restore his sight. With wonderful perseverance, he had gone from village to village, seeking some one to lead him by the hand, till, in the course of five or six weeks, he had reached my residence at Ooroomiah, where I removed the cataract from his eyes, and he returned to his mountains seeing. Scarcely had I entered the first village in his country, when this young man, hearing of my approach, came with a smiling countenance, bearing in his hand a present of honey, in token of his gratitude for the restoration of his sight, and affording me an introduction to the confidence and affections of his people.

I was invited to the residence of the chief man of the village, whose house was built, after the common style of the country, of stone laid in mud, with flat terrace roof; having a basement and second story, with two or three apartments in each. We were

seated upon the floor in 'a large upper room,' which serves as the guest-chamber and the family room in summer, but is too open to be comfortable in winter. Food was placed before us in a very large wooden bowl, placed upon the skin of a wild goat or ibex, which was spread upon the carpet, with the hair side down, and served as a table and cloth. Bread made of millet, baked in the manner of the Virginia hoeecake, but not so palatable, was laid round the edge of our goatskin table, and a large wooden spoon provided for each one of the party, eight or ten in number, to help himself out of the common dish. The people here less generally eat with their fingers than do those of Persia.

Whenever the goatskin was brought forward, I noticed that it contained the fragments of bread left at the previous meals, and was told, on inquiry, that this singular custom was observed in obedience to our Saviour's injunction, 'Gather up the fragments that nothing be lost,' and also that they might retain the blessing which had been pronounced by a priest upon former repasts; because the service, being in the ancient language, is only intelligible to the clergy, and cannot be properly performed by the laity.

The women did not eat with the men, but, instead of receiving what they left, as is very common in the East, a separate portion was reserved for the females, and, in all respects, they were treated with more consideration, and regarded more as companions than in most Asiatic countries.

Till evening they were constantly occupied in their various employments, within or out of the house, and in many respects remarkably exemplified Solomon's description of a virtuous woman, even in their method of spinning (Prov. xxxi. 19,) literally holding their distaffs in their hands, while they give their long wooden spindles a twirl with the other hand, and then lay hold of it to wind up their thread; for they use no wheel. They clothe their household in scarlet or striped cloth, made of wool and resembling Scotch tartan, of a beautiful and substantial texture.

The women appear to be neat, industrious, and frugal, and they are remarkably chaste, without the false affectation of modesty too often seen in these countries. Two of the young married women in the house came forward in the evening, and, in the presence of their husbands, joined in our social visit. Each of them, at my request, gave me a brass ring from her wrist to show to our American ladies, regarding whose customs they made many inquiries. Like others of their people, they were the most surprised that our ladies should negotiate their own matrimonial engagements, and that their fathers should give them in marriage without receiving a dowry in payment for their daughters. Their dress is neat and becoming; they braid their hair, and wear but few ornaments. Their form is graceful, their expression agreeable, and their complexion (except that it is sometimes affected by more exposure to the sun and the smoke of their dwellings) as fair as that of most Europeans.

Grapes, figs, and pomegranates, I found among their fruits in the lower villages on the river, where rice is also cultivated, to the great detriment of health. Apples and other Northern fruits are found in the higher villages. Wheat is little cultivated for want of space, but it is brought from Amâdieh in exchange for honey and butter.

Oct. 20.—SABBATH. A thin piece of board was struck rapidly with a mallet, to call the villagers to church at the rising of the sun. Each person, on entering the church, put off his shoes, and testified his reverence for the sanctuary of God by kissing the doorposts or threshold, and passed on to kiss the Gospels, lying upon the altar, then the cross, and finally the hand of his religious teacher.

The church, like all I saw in the mountains, was a very solid stone edifice, with arched roof, and might stand for ages. Others that I saw had stood for more than fourteen centuries, according to their ancient records. For the narrow door (which would not admit a man without much stooping) the usual explanation was given, 'Strait is the gate,' &c., a truth of which they wished to be reminded when entering the sanctuary. The prayers and the singing or chanting of the psalms were all in the ancient Syriac language, and quite unintelligible to the common people; but one of the priests read a portion of the Gospels, and gave the translation into the vulgar Syriac spoken by the Nestorians; and this constituted the preaching. Sometimes the reading is accompanied by some explanations or legendary stories, of which they have many.

It was a sacramental occasion; and the bread and wine were consecrated in the sanctuary or 'holy place' of the church, and then brought out by a priest and a deacon, while each member of the church went forward in rotation, and partook of a small

piece of the bread from the hand of the priest, who held a napkin to prevent any particles from falling as he put the morsel into the mouth of the communicant; and then he drank of the wine, which was held with great care by the deacon, so that not a drop should be spilled. But there was none of that idolatrous adoration of the host, so characteristic of the mass of the Romanists and of the other Oriental churches. On the contrary, there was almost a scriptural simplicity in the observance of this solemn ordinance.

There was great stillness and propriety of deportment in the congregation, and all retired without noise or confusion. In passing out, each person received at the door, a very thin *leaf* of bread, rolled together, and enclosing a morsel of meat. This was the 'love feast' of the early Christians of the first and second centuries.*

Several of the people then went to the house of the church-steward, and partook of a more substantial but plain repast, retiring soon after to their houses, or calling upon their more immediate friends. The day was observed with far more propriety than I have seen among other Christians of the East. There was a general stillness throughout the village, such as I have noticed in few places in more highly-favored lands. There was no noisy merriment, no attention to secular business; and the social intercourse of the people was nothing more than what was practised in the ancient Hebrew Church. Formerly they are said to have regarded the Christian Sabbath with so much sacredness, as to put to death persons for travelling on that holy day.

Those Nestorians who live under the government of the Koords, occasionally seek relief from rapine and oppression, and their consequent poverty, among their brethren of the plain. The heads of some of the Nestorian tribes collect a small sum as a present for the independent Hakary chief; but they profess to regard it only as a present, and they regulate their own civil affairs.

Their form of church government is essentially episcopal; but, with a single exception in the Jelu tribe, there is not a bishop among the independent Nestorians, where their religious forms have been preserved the most exempt from any foreign influence. It was a singular fact, to which my attention was first called by the testimony of Dr. Buchanan, that there is not a word in the Syriac language expressive of the office of bishop. The Nestorians, in common with the other Syrians, have borrowed the Greek term *episcopos*. This is the more remarkable, considering the fact that the Syriac language was extensively used in Palestine in the days of our Saviour, and was spoken by our Lord himself; and considering also the very early date of the Syriac version of the Scriptures, as early as the beginning of the second century. In every case where the term bishop occurs in our version, in theirs it is rendered presbyter or priest. I make these statements with the single remark that, while this form of church government may be the best for the Nestorians in their circumstances, there is enough in the facts I have mentioned to caution us about too hasty an inference concerning the apostolic origin of episcopacy, on the ground that it exists in a church which was founded by the apostles.

The tradition of the Hebrew origin of the Nestorians is general, and universally believed by the Nestorians throughout Assyria and Media. They speak of it of their own accord, in all places and in various circumstances. Smith and Dwight, in the course of their short visit to the Nestorian Christians, were struck by their singular assertion that they were the descendants of the ten tribes.† They recognise the fact in conversation with each other, as well as with strangers. One of their priests charged upon his people their accumulated guilt and responsibility, on the ground of their relation to those 'to whom pertained the covenant and promises;' and his language was that of rebuke, and not of complaisance. Often have I heard the remark from their ecclesiastics, in allusion to their Hebrew ancestry, that theirs were a stiff-necked people, like their fathers of old. These incidental allusions to their Jewish ancestry prove most conclusively that their tradition is received as a well-known truth. Though it subject him to reproach, no one denies that he is of the children of Israel. The learned and ignorant, old and young, all acknowledge the relation.

The hatred existing between the Nestorians and the Jews forbids the idea of the fabrication of the tradition. What motive could lead them to claim affinity with their most implacable enemies? Is it credible that an unfounded tradition of this kind, connecting them with a people with whom they will not even eat bread, would have been univer-

* Mosheim's Eccl. Hist., vol. i. p. 54.

† See Researches in Armenia, vol. ii.

sally received among all the various Nestorian tribes? By whom, and in what stage of their history, could it have been forced upon them? Would there have been no dissenting voice among a widely-extended people? Here, as everywhere, the Jews are the most despised and persecuted class of the people. An odium is consequently attached to all who are allied to them. For fear of this odium, I have seen Nestorians hesitate to give a reply when interrogated respecting their ancestry; yet they finally admitted their Jewish origin.

Their ignorance of prophecy forbids the idea that the tradition originated with their religious teachers, in view of the great temporal blessings promised to the Jews. They have no anticipations of such blessings for the Israelites in particular. They believe in the final triumph of Christianity in the world, but in this they claim for themselves no pre-eminence over other Christians. They read the prophets little, and understand them less. Their interpretation of the prophetic writings is generally mystical and confused.

The secluded situation of the great body of the Nestorians almost precludes the possibility of their having received the idea of a Hebrew ancestry from the neighboring nations. They chiefly inhabit almost inaccessible mountains, where they are remarkably shut out from extraneous influence. Strangers have seldom or never entered their mountain fastnesses, and I know of no people who have so little intercourse with those around them; moreover, if their neighbors had ranked them with the Jews, would not they have repelled the idea of such a connection? Is it credible that they would have received it as the basis of a general tradition? Or, were it possible that such a fabrication could be palmed upon them in one place, how were they to induce their distant brethren to admit the imposture? and that, when every feeling would revolt at the idea of such a connection.

The Nestorians have also another tradition which adds not a little to the testimony. It is, that their forefathers, at some early day, came to the region now occupied by them from the *land of Palestine*. Precisely in what period of the world this occurred they do not know, though they are sure of its truth. That it was before the Christian era will appear evident, when we come to examine the history of their conversion to Christianity. What people besides the captive Israelites have ever been carried away from Palestine to Assyria and the cities of the Medes? That the ten tribes were placed on the very ground now inhabited by the Nestorian Christians, we shall endeavor to show in the ensuing chapter. That fact, when fairly exhibited, will give great importance to this tradition, adding the character of direct testimony to what would otherwise be only circumstantial. It will, at least, afford a strong confirmation of our main position. But, direct and positive as is the testimony of the Nestorians themselves respecting their Hebrew ancestry, we need not rest so important a question on their testimony alone. We shall now bring forward witnesses whose competency none will dispute, and whose testimony is no less unequivocal and positive than that of the Nestorians themselves.

The *Jews* who dwell among them acknowledge the relationship. They admit that the Nestorians are as truly the descendants of the Israelites as themselves. Do they not know? or is it possible that the great mass of the ten tribes were converted to Christianity without their knowledge? Providentially for our cause, the ten tribes are not all nominally Christians. A remnant seem to have been left as witnesses in the case. Dispersed through the country of the Nestorians, and surrounding them on every side, are some thousands of nominal Jews, still adhering to Judaism, who claim to be a part of the ten tribes carried away captive by the kings of Assyria. These are the witnesses now on the stand. They testify, though sometimes reluctantly, that they and the Nestorians are brethren of the same stock; that they and the Nestorians have a common relation to the house of Israel, a common origin.

In Adiabene proper there are, at this day, nearly a hundred thousand Nestorians, while only a small remnant of Jews can be found among them. What have become of the latter? how came the former in their place? In Media there are about twenty thousand Nestorians, and but only a tithe of that number of Jews. The number of Nestorians on the northwest side of the Habor is not known. They are represented as numerous. This appears probable from the fact, that, about four years ago, three Nestorian bishops visited the patriarch from that region. Colonel Sheil, who passed near their country, represents them as numerous.* On the the opposite banks of the Habor

* I learn that many of them have become papists, or Chaldeans.

the whole country of Adiabene and Halah is more or less settled by Nestorians, and they were formerly even more numerous than at present. In the region of the Habor, a large portion of the ten tribes appear to have remained unconverted to Christianity than in any other place. Still their number is inconsiderable; perhaps not more than five or six hundred households. But it is remarkable that the greater part of these reside in the *Habor*, or, rather, on an *island* in that river, in the ancient town of *Zacho*.

The Nestorian population in Media and Assyria, including a small portion who have embraced the tenets of Rome, may not be far from two hundred thousand, while the nominal Jews in the same territory probably do not exceed twenty thousand souls. No one will suppose that twenty thousand individuals are all that remain of the ten tribes. It is not unlikely that the existing remnant of the ten tribes exceeds the estimate we have given of the Nestorian population, as small parties may have gone to more distant regions. But, on account of the great obstacles which hinder their emigration, these detached parties are probably small. It may be that future inquiries will identify the Yezidees on the west of the Tigris with the ten tribes. There are also on the border of Assyria from twenty to forty thousand Syrian Christians, who have many traits in common with the Nestorians. Should it hereafter be found that they have the same Jewish characteristics, the evidence of their Hebrew origin will be strong. But our present inquiries relate to the Nestorians.

While the whole region of country to which the ten tribes were transplanted is now more or less occupied by the Nestorian Christians, it is worthy of particular notice, that the most central parts of this region are, and have been from time immemorial, entirely inhabited by the Nestorians, to the exclusion of every other class of people. A great part of the independent tribe of *Tiyâry*, and the whole of the tribes of *Tehoma*, *Bas*, *Jelu*, *Diss*, and other minor tribes, are included in the boundaries of *Adiabene*, where the great body of the ten tribes were in the first century of the Christian era. They are either the captive Israelites, or they have entirely usurped their place.

I have already remarked that a small portion of the descendants of the ten tribes, by a special Providence, appear to have been reserved, unconverted from Judaism, as witnesses to the identity of their converted brethren. We have heard their direct testimony that the Nestorians have a common ancestry with themselves. They have also a common language. Not that the Nestorians speak a dialect of the Hebrew; for they do not. The Jews living in the places to which the ten tribes were transplanted, speak a different language from their brethren in other parts of the world. It is a dialect of the Syriac, which indicates for them a different ancestry. This is also the language spoken by the Nestorians. They are radically the same. The Nestorians themselves testify to this, and say there is little or no more difference between the language of their Jewish neighbors and their own, than there is between the several dialects spoken among themselves. Of this I am satisfied, after extensive observation in all parts of their country. I have seen Nestorians from *Ooroomiah* converse with Jews at *Amadieh*, without knowing from their language that they were Jews; and I can now converse with the Jews of *Ooroomiah* in their own dialect with about the same ease that I can with some of the mountain tribes of Nestorians in theirs. Other members of this mission have noticed the striking similarity of the dialects spoken by the Jews and Nestorians of *Ooroomiah*; and it is worthy of remark, that one of them, on first conversing with a Jew in his own native Syriac, supposed that the Jew had been learning the language of the Nestorians for the sake of obtaining their custom in trade. The following testimony to the identity of the language spoken by the Nestorians and Jews of *Ooroomiah*, is given by the Rev. A. L. Hollody, whose judgment in the case no one will question, when it is known that, after being for some time a professor of languages in one of the American colleges, he has prepared a grammar of the modern Syriac, the medium of communication which he has used in his intercourse with both Jews and Nestorians. 'The language of the Nestorians of *Ooroomiah* differs so little,' he remarks, 'from that of the Jews in the same city, that I can consider it only as a dialect of the same. This language, and the dialects which I have heard spoken by individuals belonging to several of the mountain tribes of Nestorians, had evidently a common origin.'

The use of the Syriac language by both the Nestorians and Jews of this region is an important fact, evincing that they are both alike aliens from the same country. In support of this opinion, we may adduce the tradition of the Nestorians which we have

mentioned, that their forefathers came from the land of Palestine, as did the Jews of course.

But our main argument will be found in the position of the ten tribes in relation to the surrounding nations. When the ten tribes revolted from Judah, their kings, as we have seen, spared no effort to make them a distinct people from the other Hebrews. If, to perpetuate the breach between the two nations, they were ready, in the face of the most signal warnings, to lead the Israelites into idolatry, would they, as the means of securing the same end, hesitate to encourage among them the use of a *different language*? Connected as they were with the Syrians, they would most naturally acquire their language. That they so early adopted the strange gods and idolatrous rites of the Syrians, is difficult to explain on any other supposition than their having a *common* medium of communication. This is also evinced by their becoming confederates with the Syrians in their wars against Judah. But no circumstance more conclusively shows the almost necessary introduction of the Syrian tongue among the Israelites, than the fact that they were so completely subjugated by the Syrians. For a whole generation or more, the Syrians oppressed and wasted them till they 'had made them like the dust by threshing.' After the death of Hazael, king of Syria, who was raised up as a special scourge to Israel, and who oppressed them for more than twenty years, the Israelites gained some advantages over their Syrian masters; but it was not till several years later that they finally threw off the Syrian yoke. The ten tribes had become reduced to such straits by their cruel servitude to the Syrians, as to call forth the interposition of God in their behalf: 'For the Lord saw the affliction of Israel that it was very bitter; for there was not any shut up, nor any left, nor any helper for Israel. And the Lord said not that he would blot out the name of Israel from under heaven; but he saved them by the hand of Jeroboam, the son of Joash.*'

How can we be at a loss, after their forty years' servitude to the Syrians, and their civil and religious intercourse with them for two and a half centuries, from the revolt to their captivity? It is not difficult, then, to account for the fact, that *the ten tribes, before their captivity, spake the Syriac language*. If it be objected that a conquered nation would be slow to adopt the language of their oppressors, I appeal to the history of those countries where such changes frequently occur. Where the people, influenced by religious prejudice or other reasons, have shown a repugnance to make the change, they have, in some instances, been compelled to do it by severe inflictions. This was true of many of the Greeks of Asia Minor. At the point of the sword they have been made to exchange their classic language for that of their Mohammedan foes. And in Palestine itself, the Arabic has taken the place of the Syriac, as that did of the Hebrew.

The close affinity between the Hebrew and Syriac, I need scarcely remark, rendered the change peculiarly easy to the people of Israel. Consequently, it may have been effected almost imperceptibly to themselves, as one generation succeeded the other during their subjection to the Syrian kings; or rather, I might say, during the two hundred and fifty years of their religious and national intercourse. And if, as we have supposed, the change was encouraged by the policy of their kings, to strengthen the wall of separation between Israel and Judah, it is almost inevitable that the ten tribes should have acquired the Syriac language. Now, add to all this circumstantial proof the fact that the Jews, dwelling in the regions to which the ten tribes were carried captive, do to this day speak the Syriac language (a language used by no other portion of the Jews of whom we have any knowledge,) and the conclusion cannot be avoided, that their ancestors obtained that knowledge before their captivity. It appears then, from their language as well as other testimony, that the Jews now living in 'Halah and Habor, by the river of Gozan, and in the cities of the Medes,' are descendants of the ten tribes; and that they spoke the Syriac tongue at the time they were deported to these places. The number of the Jews still professing Judaism, however, is altogether too small to allow of the supposition that they are the only representatives of Israel, to whom such prominence is given in the unaccomplished predictions of the inspired Prophets. Still they are sufficiently numerous to be important witnesses to the identity of the Nestorians with the lost tribes.

As far as a common language can in any circumstances identify one people with another, so far the language of the Nestorians proves their Israelitish origin.

* Compare 2 Kings x. 23; xiii. 3—7; xiv. 26—27, with Chron. of Eng. Polyglot.

Beni Israel is used generally to designate the lineal origin of the Nestorians. Ask any intelligent Nestorian for information relating to his ancestry, and he replies at once, "We are sons of Israel." It is a term familiar to all; and we might, with as much propriety, deny them the name of Christians, as to refuse our assent to this more ancient appellation, since they lay claim alike to both, while their rites and customs and other circumstances furnish nearly as satisfactory testimony in the one case as in the other. But, while they assert an inalienable right to this name, so significant of their Hebrew origin, still, as their specific character as *Jews* has merged in the one they now bear as Christians, and as their national character is in a manner lost in their long captivity, they now more commonly apply to themselves another name. The name *Beni Israel*, however, is not unfrequently used by the Nestorians; nor is this the first time it has been brought before the public. It is distinctly mentioned by writers upon Persian Christians as evidence of their relation to the Jewish Church.*

Nazareans is a term very commonly employed by themselves and others to designate the Nestorians.† It is specific in its application to the Nestorians, and is never applied to the Armenians or other Christian sects. As evidence of their Hebrew origin, it may be, in some respects, even more satisfactory than the expressive appellation, 'sons of Israel.'

NESTORIAN is a name disliked by the people thus designated. They rarely apply it to themselves, and they are averse to its application by others, lest, as it seems, they should be thought to participate in the reputed heresy of Nestorius, a bishop of Constantinople, who was excommunicated from the general church, A. D. 431. But the reason which they assign for objecting to the use of this name is, that they never derived either their doctrines or their rites from Nestorius. They reverence him for raising his voice against the worship of images, and against the prevalent use of the title *Mother of God*; which, as they affirm, virtually takes away the humanity of our Saviour, and thus leaves us without a *Mediator*. But having themselves never applied any other title than *Mother of Christ* to the Virgin Mary, and their worship never having been polluted with images;‡ while, at the same time, they have ever held to the human and Divine nature in one person in Christ, they ask, where is the propriety of calling their ancient church after a bishop who lived in comparatively a late day, and with whom they never had any connection? It is true, they espoused his cause as the cause of an injured man, whom they regarded as a faithful servant of the Lord Jesus, persecuted for righteousness' sake; and on this account the enemies of Nestorius endeavored to fasten reproach upon them by calling them after his name.

Throughout Protestant Christendom, however, the name of Nestorian is justly honored; and there seems to be no good reason for discarding it at this late day, established as it is by long conventional usage, and interwoven with the history of the church and the world.

That the converted Jews continued to observe the ceremonial law, as far as was compatible with their profession of Christianity, there is abundant proof in history; while the evidence is equally clear that these onerous rites were never imposed upon the Gentile converts.¶ Hence the observance, by the Nestorian Christians, of the peculiar rites and customs of the Jews, furnishes very strong evidence of their Hebrew origin. So peculiar were the demands of the Mosaic ritual on many points, that there is no possibility of their adoption and perpetuation by mere accident or casual coincidence. If some of these rites, as in the case of sacrifices, were practised by other nations, yet there were collateral observances, connected with them by the Jews, so unique in their character as to leave no room for mistake. Some of the Jewish rites, being obviously incompatible with Christianity, must not be looked for among the converts from Judaism. But if the reason for their discontinuance, in particular cases, can be clearly indicated, the evidence, as a whole, will not be essentially diminished. Let us look at the application of this principle in relation to *sacrifices*. That Christ has offered himself a sacrifice to atone for the sins of his people; that we are sanctified through the offering of the body of Jesus Christ, *once for all*, is the foundation of the Christian's hope; con-

* See Encyclopædia of Religious Knowledge, art. Persian Christians.

† I have seen more than one letter written by Nestorians to the patriarch Mar Shimon, in which he was styled 'Patriarch of all the Nazareans.'

‡ See Researches of Smith and Dwight, vol. ii. p. 202—242.

¶ Acts xv. 1—29. Mosheim's Eccles. Hist., vol. i. p. 103, 170.

sequently, it is clear that it would be a virtual denial of Christ as "*the propitiation for our sins*," to continue to offer the atoning sacrifice or sin-offering of the Levitical code. But the Jewish ritual prescribed other sacrifices, which were in no way connected with the atonement. If, therefore, we find a body of Christians continuing to offer these sacrifices after the manner of the Mosaic ritual, is it not probable that they would have retained the other also, had it not been abrogated by the death of Christ? And would not their continued observance of the only sacrifices compatible with their profession of Christianity, afford as satisfactory evidence in favor of their Jewish origin as though they observed them both?

This is just the case with the Nestorian Christians. While they acknowledge Christ as the *final* offering for sin, they continue to present the other form of sacrifice—the peace-offerings—in accordance with the customs of the Jews.

'The peace-offering,' says Cruden, 'was offered to return thanks to God for his benefits, or to ask favors from him, or to satisfy any one's private devotion, or for the honor of God only. The *Israelites* offered them when they pleased, and there was no law that obliged them to do it. It was free to them to present what animals they would, provided they were such as it was allowed them to sacrifice. In these sacrifices no distinction was made, either of the age or sex of the victim, as was required in the *burnt sacrifices* and *sacrifice for sin*; the law only required that their victim should be without blemish. Lev. xxxi. He that presented them came to the door of the tabernacle, put his hand upon the head of his victim, and killed it. The breast and the right shoulder belonged to the priest that performed the service; all the rest of the sacrifice belonged to him that presented it, and he might eat it with his family and friends as any other meat.* But it must be eaten on the first or second day. Lev. vii. 16.

No general description could better answer to the sacrifices† of the Nestorians, both as regards their object and the manner of performing them. They are usually offered to return thanks for God's benefits, or to obtain new favors from him; as, for instance, the recovery of sick friends, or their own restoration to health. The animal is then usually slain before the door of the church, when a little of the blood is often put upon the door or lintels. The right shoulder and breast belong to the officiating priest of the church; though he does not always receive them, either through neglect of the person who offers the sacrifice, or, as some of the priests informed me, from a wish to avoid following the wicked example of Eli's sons, who made the sacrifices of the Temple an occasion of selfish gratification. Few, however, refuse their portion on this account. The skin is also given to the priest, as was required in the burnt-offerings. Lev. vii. 8.

As all who are present may partake of the sacrifice, it is sometimes spoken of as a charitable offering; but it is often eaten by the person who offers it, together with his more immediate friends. It is regarded by all as an offering acceptable to God. In some cases the animal is slain before the door of the offerer, and a portion is sent to every house in the village; but this is usually in fulfilment of particular vows to that effect. The sacrifice is generally all eaten the same day it is killed; but I saw an instance at the house of the patriarch, in which it was not consumed till the evening of the second day, when they said it was necessary that it should all be eaten. The custom of sprinkling the blood upon the altar, and of burning a part of the victim, is not strictly observed by this people; but it is also omitted by the Jews of Oorooniah and of other countries.

The Nestorians regard these sacrifices as a remnant of their former Jewish rites; and those Jews, of whom I have inquired on the subject, say that 'they are a part of their own rites, which the Nestorians have retained since their conversion from Judaism, while they have departed from the law in more important matters.' The Nestorians sometimes offer sacrifices on the death of distinguished persons, supporting the practice by reference to 2 Maccabees xii. 43, as they do their other sacrifices by reference to the Mosaic ritual and the practice of their forefathers.

First-fruits are to this day presented to the Lord by the Independent Nestorians, as they were among the Jews of old. The first ripe fruits of their fields, gardens, and vineyards are presented to God before the harvest is gathered; and, as their flocks comprise their chief wealth, they also set apart the first-fruits of the dairy as an offering to the

* Cruden, Calmet.

† The Syriac word which denotes these sacrifices is *Deukha*, in Castelli's Lexicon translated 'victima sacrificii.'—Ps. iv. 18. Heb. x. 12. Ps. xxvii. 6. Heb. xiii. 15. Pet. ii. 5.

Lord. A day is appointed as soon as the sheep have brought forth their lambs, viz the milk of the whole flock is set apart for the support of the services of the sanctuary or to feed the poor. Either in the form of milk, butter, or cheese, as suits the offerer, is carried to the most central and principal church, and given for the service of the Lord. Several large schools are said to have been supported by these first-fruits and tithes, in former years. But now they are consumed by attendants and visitors at the church, or at public festivals. In other parts of the Nestorian country the first-fruits have ceased to be offered, owing, as it is said, to poverty and oppression. In Tiyrâra practice is said to be general, though it may not be universal.

Tithes have ceased, as it is said, for the same reason; nor would their existence be satisfactory testimony in the case, as they have been introduced among many other branches of the church. But the offering of first-fruits to the Lord is believed to be a practice so peculiar as to be identified at once as a remnant of Judaism.

The Sabbath is regarded with a sacredness among the mountain tribes which I have seen among no other Christians in the East. I have repeatedly been told by Nestorians of the plain, that their brethren in the mountains would immediately kill a man for travelling or laboring upon the Christian Sabbath; and there is abundant testimony to prove that this was formerly done, though it has ceased since the people have become acquainted with the practice of Christendom on this subject.

While in the mountains I made repeated inquiries concerning the observance of that remarkable statute of the Jews, which required that 'whosoever doeth any work on the Sabbath-day, he shall surely be put to death;' and I was everywhere told that this statute had formerly been literally executed. Nor does there appear to be any motive for deception, since the practice is now disapproved of by all. There are said to be Nestorians in Tiyrâra who will not kindle a fire upon the Sabbath to cook their food; but their cold winters oblige them to do it for the sake of necessary warmth. On the plain there is much desecration of the Lord's day; but can the execution of the Mosiac ritual regarding the Sabbath, by the independent Nestorians, be accounted for in any other way than as a remnant of Judaism? Where, except among God's ancient people, to whom this peculiar law was immediately promulged, can we find a parallel case?

The Nestorians have also the '*preparation before the Sabbath*,' commencing about three hours before sunset on Saturday, when all labor should cease except what is necessary to prepare for spending a quiet Sabbath.* But the rule has in a measure fallen into disuse.

The Sanctuary, or holy place of the Temple, was guarded among the Jews with no less strictness than the sacredness of the Sabbath; and the sanctuary of the church is regarded with much the same reverence by the Nestorian Christians. In speaking of the Nestorian churches, the Rev. Eli Smith remarks: 'I observed that a door conducted into the sanctuary, and was about to enter. But the bishop commanded me, in an authoritative tone, to stop. I told him that I too was a priest; but he replied that that place can only be entered by fasting, and betrayed by his manner, such an earnestness that I desisted.†' None but the consecrated ecclesiastics can enter this holy place; and they must not only abstain from all food and drink from the previous day, but also from sources of uncleanness mentioned in the ceremonial law, particularly from that forbidden by Moses (Exod. xix. 15) when he sanctified the people preparatory to his entering into the presence of God on Mount Sinai. Great care is taken to secure the holy place against the entrance of any unclean person or animal.

When the sanctuary has been polluted by the entrance of any unhallowed person, it must be consecrated anew before it can be used for the service of God. During the interval we have been permitted to enter this 'holy place' of the Nestorian churches, but under no other circumstances. Not long ago a bishop was called to consecrate anew the sanctuary of the church in Ooroomiah, which had been entered by unhallowed feet in the night.

The 'Holy of Holies' still exists among the Nestorians. A small recess in the wall of their church is called by that name. Christ having entered into the most holy place 'once for all,' a figure of the cross is kept there, and no one enters. Other parts of their churches bear the names of corresponding parts of the Jewish Temple. There is no parallel to this state of feeling among the other Christians of the East. I have

* See Jahn's *Archæology*, p. 442.

† *Researches of Smith and Dwight*, vol. ii. p. 811.

repeatedly entered the sanctuary of the Armenian, Greek, and Jacobite Syrian churches, and that in the presence of their ecclesiastics, who made no objection. Whence is this difference of sentiment?

In the *construction* of their churches, the Nestorians attach much greater importance than the other Christians, to the sanctuary, making it about half the size of the main body of the church or '*temple*,' (hekla,) as they call the place of general congregation. The Nestorians, also, have much the same feeling of strong attachment for their ancient churches that the Jews had for their Temple. I have frequently seen them go out of the way to pay them some mark of reverence; and when I inquired of some of the mountaineers how it was that they had so long preserved their independence, surrounded by enemies on every side, their reply was, 'Our *churches* have saved us.*' Their churches, as well as the sanctuary, may not be entered by persons contaminated by any of the ceremonial pollutions of the Levitical code. This singular fact needs no comment; but the mention of it naturally leads to the consideration of some of the peculiar Jewish sentiments or regulations to which allusion is here made.

Swine's flesh and other meats prohibited by the Levitical code, are here regarded by many of the Nestorians with little less abhorrence than they were by the Jews; though intercourse with other Christians is said to have effected quite a change in the sentiments of some on this subject. In the mountains the change is less felt than in Ooroomiah; and, though wild hogs are frequently killed, very few, if any, eat of their flesh. While I was with the patriarch, the change of sentiment on this subject was mentioned more than once as the effect of foreign influence. The innovation is said to have been very recent, as it is also felt only to a limited extent. We have the testimony of their most intelligent men, that formerly their people would not so much as touch, and much less eat the flesh of swine, or other animals regarded as unclean by the ceremonial law. It is one of the accusations which the Nestorians bring against some of their Christian neighbors, that they eat unclean or forbidden food. Those who take a more liberal view of the subject, feeling it necessary to justify their conduct in the eyes of their opposing brethren, quote the words of Christ: 'Not that which goeth into the mouth defileth a man;' and also the command of God to Peter, to 'kill and eat' of animals that were before regarded as unclean. Acts x. 10—16. The fact that the Moslems observe the same distinction respecting clean and unclean food, is no argument against our views; for it is well known that Mohammed borrowed many things from the Israelites. Now, as these specific regulations are confined to the Jewish and Moslem codes, the Nestorians must have derived them from the one or the other; and, as we have seen that they have many customs quite peculiar to the former, while they clearly are not descendants of the latter, is it not most rational to believe that their sentiments regarding forbidden food are also a remnant of Judaism? Their appeal is not to the Koran, but to the Mosaic ritual.

Their *fasts and festivals* bear a close analogy to those of the ancient Jews. Like the Pharisees, they 'fast twice in a week,' and they attach great importance to these observances. These attachments the Nestorians themselves refer to a Hebrew origin. 'In one instance,' says my friend Mr. Stocking, 'while I was hearing the bishop and priests read the New Testament, the difference between the Jewish and Gentile converts, arising from the strong attachment of the former to their Jewish customs, was alluded to; and one of the priests remarked to me that the analogy was quite similar between ourselves. 'We,' said he, 'were formerly Jews, and hold to our fasts; but you are Gentile Christians, and do not wish to adopt our customs.'

The *Passover* they observe as their principal festival. They call it *Pascha*, after the original name of that ordinance as observed by the Jews. But the mode of the observance is modified by their faith in Christ. Regarding Him as the final passover, they substitute the emblems of his body and blood for the Paschal Lamb. In other respects they keep the festival much after the manner of the ancient Hebrews; and a like correspondence is observed throughout their fasts and festival occasions.

Circumcision, say the Nestorians, has been superseded by baptism; and they baptize their children on the eighth day, or at a subsequent period, but never before; and the ordinance is usually, but not uniformly, performed by immersion.

The physiognomy of the Nestorian Christians bears a close resemblance to that of the

Jews of the country in which they dwell. Even the natives, who are accustomed to discriminate by the features between the various classes of people, are often unable to distinguish a Nestorian from a Jew; and I have taxed my own powers of discrimination with no better success. While Nestorians and Jews have been seated together before me, I have in vain endeavored to find some distinguishing mark between them in the features or general contour of the face. The Jews, being more oppressed, I have sometimes fancied, wore a deeper shade of care in their countenance, and, in some cases, the complexion may be very slightly affected by their closer confinement in their mechanical and commercial pursuits, while the Nestorians are more abroad with their flocks or in the fields. But this does not afford a criterion by which we can distinguish between them; for, if a Jew has been exposed to the weather, we the more readily mistake him for a Nestorian; and so, if the latter has been confined to the house, we confound him as readily with a Jew. Other members of this mission, and one English gentleman who visited us, have noticed this striking resemblance, saying of this or that Nestorian, 'He has the most marked Jewish physiognomy I ever saw.' On this subject my friend, the Rev. Mr. Homes, remarks: 'One of the first things which suggested itself to me on seeing the Nestorians, was their peculiar Jewish physiognomy.'

Their names are as strikingly Israelitish as their physiognomy. I have seen promiscuous circles of ten or twelve Nestorians, in which every individual had a Jewish name. From forty-five members of our seminary who were taken promiscuously, thirty-two had Jewish names found in the Bible. Others had received names of significant import, in accordance with the custom of the Jews, and such as are common among those of Ooroomiah.

Most of the Nestorian Christians, like the ancient Israelites, live in separate tribes. We do not deem it essential to our main position, and shall not attempt to identify each one of the tribes separately. 'The tribes of Israel,' says Dr. Buchanan, 'are no longer to be inquired after by name. The purpose for which they were divided into tribes was accomplished when the genealogy of the Messiah was traced to the stem of David. Neither do the Israelites themselves know certainly from what tribe they are descended.' In the prophecies yet to be fulfilled, except those contained in the last chapter of Ezekiel, the ten tribes are always spoken of collectively. As a *body*, they are distinctly designated by the names Israel and Ephraim; and the rich blessings promised them in the word of God are to be received by them as one people. We shall, therefore, content ourselves for the present if we can identify them as a *whole*. When 'the lost sheep of the house of Israel' shall be gathered together in one fold, if the Great Shepherd has designs to accomplish by their separation into their respective enclosures, a division will unquestionably be made. Still, the existence of the Nestorians, from time immemorial, in distinct tribes nearly or quite corresponding in number to those of ancient Israel, is a remarkable fact, and may furnish interesting testimony with regard to their origin. If we are able to identify one of these divisions with any one of the ten tribes, the inference naturally follows that the other divisions represent the remaining tribes, especially as there is internal evidence of their common origin.

As already intimated, few of the Nestorians can trace, either by tradition or otherwise, their lineal descent. Some, with a degree of vanity, have claimed connection with the royal tribe, but have afterward acknowledged their ignorance on the subject.* Others distinctly claim that they are the posterity of the *ten tribes*, without attempting to trace their ancient divisions. But, in the midst of this general ignorance on the subject, the family of the patriarch, who of all others are the most likely to have preserved correct information regarding their genealogy, assure us most confidently that they know the particular tribe from which they are descended; and they make the assertion with so much apparent integrity of purpose, and with such attendant circumstances, as leave us no room to doubt their sincerity.

They claim descent from *Naphtali*; a claim that certainly savors little of vanity. If the assertion be not founded in truth, why do they not claim affinity with the sacerdotal or royal tribes? What possible motive can they have for courting an alliance with the humble son of a handmaid? The highest family in the nation setting up an unfounded claim to a connection with the most humble, with one of the least distinguished of all their ancient tribes? With the pride of ancestry which especially characterizes every

* The names of the tribes appear to be lost in the names of their districts.

distinguished Oriental, there is a strong temptation for them to disavow this humble connection altogether, and substitute for it one of more honorable name. The records on which they mainly relied for proofs in the case, were, together with a large quantity of manuscripts, lost in conveying them across the Zab at high water about sixty years ago. But, as this occurred so recently, and during the lifetime of some now on the stage, there is little room for mistake in the case. Either the story must be altogether a fabrication, at which all have connived, or it must be based upon proof which was satisfactory at least to those most concerned. As there is no conceivable motive for attempting such an imposition, we are left to the fair conclusion that the patriarch's family are what they profess to be, the descendants of the tribe of Naphtali. The other Nestorian tribes sustaining about the same relation to this and to each other that the Hebrew tribes relatively held, it is natural to infer that they all had a common descent from the stock of Israel, as their high-priest appears to have had from one of the ten tribes. This idea derives additional support from the circumstance, that their chiefs or nominal heads retain the Hebrew appellation *Melek* or *Malek*, which designated the royal head of the nation of Israel. This term, it is true, has found its way into other Oriental languages; but I know of no other people in the East with whom it is in common use, to designate their civil head, as it was among the Hebrews, and is now among the Nestorians.

There is also much in the government of the independent Nestorians which resembles that of the ancient Hebrews. Their maleks, it is true, have little more than the name of their office, and the people are really "without a prince" or any civil head. Their form of government partakes much of the theocracy of the ancient Jewish code, when 'the high-priest was at the head of all religious affairs, and was the ordinary judge of all difficulties that belonged thereto, and even of the general *justice* and *judgment* of the Jewish nation.'*

This is just the relation sustained by the Nestorian patriarch to the independent tribes. He presides on important occasions in the judicial assembly of their elders;† and he inflicts punishment for civil offences by the several forms of excision or excommunication in use among the Jews; cutting off the offender, not merely from the privileges of the church, but from civil society and all the rights of citizenship. His authority is only that which, as the anointed high-priest of his people, he derives from God. But its power is felt, as I had occasion to notice in the case of a man of some rank in Tiyâra, who was cut off from all intercourse with the people, so that I was obliged to go a day's journey out of my way to avoid communication with him.

The AVENGER OF BLOOD among the independent Nestorians is the minister of justice for capital crimes, as was the case among the Hebrews. 'The execution of the punishment which (in Gen. ix. 6,) was decreed against the homicide, devolved on the brother or other nearest relative of the person whose life had been taken away. In case he did not slay the guilty person, he was considered *infamous*.'‡ This is just the state of things among the Assyrian tribes of Nestorians at this day. An indelible stain marks the character of the person who does not avenge the death of a relative; and, so strong is the force of this long-established custom, that even the precepts of the Gospel fail to overcome it.

CITIES OF REFUGE§ were appointed by the Hebrew legislator to prevent abuses in this summary manner of punishing the guilty. These cities were the property of the priests and Levites, and were required to be numerous and accessible. Among the Nestorians, the *churches* in most respects correspond to this description; and they are the constituted *cities of refuge*, where the man-slayer may flee for security, and safely remain till the elders shall decide on his case. If then the man be found guilty of wilful homicide, he is delivered over to the *avenger of blood* to be put to death; if not wilful, a ransom is fixed by the judges, or the affair settled to the satisfaction of the avenger of blood, (Ex. xxi. 30,) and his life is spared.

There are many other points in the civil policy of the Nestorians, upon which I need not dwell, that appear to be derived directly from the Mosaic law, which is, in fact, their only civil code. It is their adherence to this code that forms the ground of evidence in support of their Hebrew origin; and hence a semblance of the same practices among other Orientals detracts very little from the validity of this testimony. Let it be

* Calmet.

† Compare Jahn's *Archæology*, p. 299. Ib. p. 318.

‡ Jahn's *Archæology*, p. 326.

§ Ib. p. 327. Dent. xix 1-13. Num. xxxv. 9-29

shown that any other people not related to the Jews as really follow the precepts of the Mosaic law, and appeal to it as the basis of their civil jurisprudence, and we will admit that there may be nothing in the government of the independent Nestorians indicative of their Israelitish origin; but, till then, we must regard these customs as affording strong circumstantial evidence in its favor.

The sentiments and feelings of the Nestorians in respect to the Jews are a matter which requires more than a passing notice; as very different conclusions may be drawn from it by different individuals, unless it be traced to its proper source. When viewed in its true light, it bears testimony to their common origin.

They are a peculiar people. The relation of the Nestorian Christians to the surrounding nations is in itself a circumstance of no little interest. But it assumes a magnified importance in this connection, both on account of the evidence furnished by the fact as indicative of their early ancestry, and as a proof that they are to this day a distinct and unmixed race. Were there no evidence of this, it might be objected that, although it is clear that they have remains of Judaism and other evidence of a relation to Israel, yet only a part of them may have a Hebrew origin. But their relative situation and their civil and religious policy, together with their peculiar character and language, evince the futility of this objection.

Their geographical position is remarkably adapted to their preservation as a distinct people. I speak now particularly of the main body of them in the recesses of almost inaccessible mountains, where they are seldom visited by any other people. Though surrounded by Persians, Turks, Koords, Arabs, Armenians, Jews, and Yezidees, they have very little intercourse with either, and admit none into their country, except on particular business, and then only such as are well known, or who come with the sanction of their chief men. Their secluded retreat is so walled around by adamantine barriers, and is so easily defended, that their enemies have never been able to scale their mountain ramparts; so that they have remained for ages almost shut out from the world around them. Not only are the principal part of the Nestorians shut out by physical barriers from the people around them, but their civil condition requires them to remain peculiarly distinct. It is perhaps to this, as much as to the nature of their country, that they owe their present independence, in the midst of numerous and powerful enemies; while, on the other hand, their seclusion and exclusive policy naturally repel any attempt on the part of others to form a connection with them.

There is much in the social and domestic habits of the Nestorians so entirely similar to what we find among God's ancient people, that a particular account of them would differ but little from a correct transcript of Hebrew archæology. Perhaps I cannot better introduce this part of my subject than by a short extract from the journal of the Rev. Mr. Perkins: 'As I was at work in our little garden,' he writes, 'the boys belonging to our school passed along and saluted me in their patriarchal style, by saying, "Allah covet yavil," "May God give you strength." It is deeply interesting to see how much there is that is truly primitive among the Nestorians. We meet with it in their household furniture, in their agricultural utensils, in their instruments of music, but, most of all, in their modes of salutation. When two persons meet, they mutually salute each other by saying, "Peace be with you;" and the other replies, "Your company is welcome." When a guest leaves a house, he says, "May God grant you increase, may your days be prosperous;" and the other replies, "May God be with you." When one puts on a new garment, enters a new house, or purchases a new article, his friend congratulates him by saying, "May God bless your garment," "May God bless your house," &c. If you do a Nestorian a kindness, or wish him prosperity, he says, in thanking you, "May God give you the kingdom of Heaven." When one enters upon any undertaking, he says, "If the Lord will, I shall accomplish it;" "In the strength of the Lord, I will learn this book," &c.

The *forms* of their salutations, I may add, are no less primitive than the phraseology in which they are expressed. We see the same ardent gesticulations, prostrations, falling upon the neck, the same kissing of the lips, cheeks, beard, and hands; and the same weeping for joy on the return of long absent friends.

Their *hospitality** to the stranger, and especially to their own people, is quite as primitive as the salutation with which they meet him. His every want is promptly supplied;

* Compare Jahn's Archæology, pp. 196-7.

water is brought for his feet; food is immediately prepared and set before him, and every provision is made for his comfort and repose. He goes not from house to house, but, having found a shelter under one roof, he would do injustice to his kind host to leave it for another lodging in the same village. He salutes the house on entering; his peace rests upon it; and he departs with a blessing. I think I never saw the expressions of hospitality in such primitive simplicity as exhibited among the Nestorian Christians. Nor is their general kindness to the poor and suffering less remarkable. None are turned empty away; and those who have the means, often lay up extra stores for the poor, and for months together provide them food and shelter. Lev. xix, 34. Deut. x. 18, 19.

Their *entertainments* are in the true Hebrew style. The guests are invited by a servant, who is often* sent round the second time when the feast is ready. Each one is seated by the master of the feast according to rank, the more honorable being invited to come up higher, while the others give him place; the governor of the feast presides; the social bowl circulates; all dip their hands into the dish, and occasionally one dips a sop and gives to another (a special kindness.) They sit upon the carpet or floor, and lean forward, eating their plain food in a primitive manner.

At their joyous festivals they have music and dancing; the tabret and viol, and David's harp, and the voice of singing. They observe their new moons and Sabbaths or solemn feasts. In *mourning*, they often cast dust upon their heads, rend their garments, clothe themselves in sackcloth or coarse attire, and sit in the ashes or go to the grave to weep there.

In their *dress*, too, there is a striking conformity to that of the Jews about them; and, while their loins are girded about, their staff is in their hand, and their feet are shod with sandals. These last are sometimes made of hair, and at others of raw hide or leather, and little more than cover the sole of the foot.

Among their *ornaments* are earrings and nose-jewels; chains and mufflers, or spangled ornaments; headbands and stomachers; bracelets on their hands, rings on their fingers, and plaiting of the hair; though in the mountains there is more of the modest simplicity of the days of Sarah.

Their *employments* are those of early antiquity. We see the damsels coming daily to draw water, with their pitchers on their shoulders, gleaning wheat in the fields in the time of harvest, or, like Rachel, tending their father's flocks; while the virtuous woman seeketh wool and flax, and worketh willingly with her hands. She layeth her hand to the spindle, and her hands hold the distaff, both being literally held in the hand. Women are seen grinding at a mill,† or braying wheat with a pestle in a mortar to separate the hull,‡ or churning milk (not cream) to bring forth butter, or gathering the grass, 'which to-day is and to-morrow is cast into the oven;' making bottles of skins or leather to contain the wine which has been trodden in the wine-press by the feet. The vineyards, the threshing-floors, the winnowing of wheat while the chaff is driven before the wind; the threshing instruments having teeth; the reaping and the shouting of the harvest; the turning the rivers of water to fertilize their fields; planting of willows and other trees by the water-courses; the ploughs; the pruning-hooks; the lodge in the gardens of cucumbers or melons; their food and drink, and the time of their meals; their domestic animals, beehives, and sheepfolds; their dwellings and amusements; their walking and sleeping upon the house-tops, and many other customs and peculiarities, are equally common to the ancient Israelites and the modern Nestorians.

It would surpass our limits to speak of other usages which might have been named in this connection, and much more to dwell upon them at length. But there are a few customs, particularly those relating to the marriage union, and to their pastoral life, which ought not to be passed over in this cursory manner.

Among the Jews, the father of a family selects wives for his sons, and husbands for his daughters. If a son had a preference for any person as his wife, he asked the father to obtain her from *her* father. But the father could not give the daughter in marriage without the consent of the brothers.¶ These are the very rules observed by

* Matt. xii. 3.

† They also have water-mills for grinding, made in the most simple manner. These have but a single wheel and the revolving stone and wheel are attached to the same perpendicular shaft.

‡ The wheat is pounded in a large stone mortar, and the hull is only separated with great difficulty; but it is far more difficult to divest a fool of his folly. Prov. xxvii. 22.

¶ Jahn's Archæology, p. 162.

the Nestorians at the present day. No young man thinks of making a marriage-contract for himself. In case the father is dead, the eldest brother takes the father's place. Where the intended bride lives at a distance, the matter is sometimes intrusted to some faithful servant or agent, as was done by Abraham in relation to his son Isaac. This event was remarkably illustrated by the history of a marriage that took place a short time since among the Nestorians in the mountains. Indeed, there was such a remarkable coincidence of names and circumstances, that it seemed like acting over again that most interesting part of sacred history.

XVII. INDIA.



Bombay.

The British empire in India took its beginning rather less than a hundred years ago. The English East India Company was first established in the year 1600; but, down to the middle of the last century, its great object was trade. It was to protect and facilitate this trade that it obtained possession of several small tracts, on which forts were built for the protection of its servants and goods; and it was in this way that its territorial occupation began. Fort St. George, about which grew up the city of Madras, was built in 1638. The island of Bombay, given to Charles II. by the Spanish court as the dowry of his wife, being transferred to the East India Company, became in 1687 the Indian head-quarters of the Company. Fort William, the nucleus of the great city of Calcutta, was built in 1698.

The next step towards territorial dominion, was the taking as security for money lent to the native princes, in the neighborhood of the Company's establishments, the collection of the taxes of certain districts, and along with it, according to the custom of India, a certain political authority.

The Company next began to take a side in the quarrels of the native princes, to raise armies and fight battles; and presently it became master, where it began by being ally.

This result was mainly produced by the rivalry and hostility of the French and English; for the French also had an East India Company, and forts and factories in Hindostan. The war which began in Europe and America, in 1743, between the French and English, spread also to India, where it raged, almost without intermission, for 17 years; at the end of which period the English succeeded in expelling the French from India, or at least in confining them to their original factories; while they themselves remained masters of the *Carnatic*, a large tract of country in the vicinity of Madras.

During the same contest, they had also acquired a great ascendancy and influence in Bengal ; and, in 1765, lord Clive obtained, in absolute sovereignty, for the Company, the provinces of *Bengal, Bahar, and Orissa*, a territory 150,000 square miles in extent, with 10,000,000 inhabitants. In India, all the land is held subject to the payment of a certain large proportion of the produce to the government, in lieu of taxes ; the government, in fact, is the owner of the land, and the East India Company obtained their first territorial sessions in a mere trading spirit, in hopes of making money out of the government share of the produce. In this, however, they found themselves very much mistaken. The expenses of war reduced them to bankruptcy ; and this circumstance, together with the abuses and plunder of the natives, which grew out of their civil and military power, led to the interference of parliament, by which the political power of the Company was, from time to time, curtailed and its constitution essentially modified. Thus at the renewal of the charter of the East India Company, in 1833, it changed its character entirely. It ceased altogether to be a trading company. It consists, now, of certain holders of India stock, which is sold every day in the market, and of which any person who has money may become a purchaser, thereby becoming entitled to receive a certain annual dividend out of the Indian Revenue, and to vote in the choice of Directors. The whole power of the Company is vested in the Board of Directors, who are chosen annually at a meeting of the stockholders, any stockholder to a certain amount being eligible. This Board of Directors, who hold their sessions at the India House, have the general superintendence of the government of India, with almost all the immense patronage growing out of it ; subject, however, on all points involving political results, to the authority of a Board, called the Board of Control, consisting of three persons appointed by the Crown, the president of which is a member of the Cabinet. The local government, in India, is under the superintendence of a Governor General, whose residence is at Calcutta, and who is also the immediate head of the Bengal presidency, to which belongs almost the whole of the extensive, fertile, and populous countries watered by the Ganges. The other two presidencies, of Madras and Bombay, are subject to the Governor General, in all that concerns military operations and the relations with foreign States, but in their local administration they are independent. Each presidency has courts of its own. Almost an entire monopoly of all civil and military offices, under the Company, is enjoyed by a body of men constantly recruited by cadets, young men sent out from England, who enter either the civil or military branch of the service, and rise gradually, by regular promotion. All the higher officers enjoy very large salaries. The standing army of India, by which the power of the Company is maintained, consists of 200,000 men, of whom but a small portion are Europeans. The bulk of the army is composed of native regiments, officered by Europeans, who are found to make excellent soldiers. At present, no native can rise in the army to anything more than a non-commissioned officer.

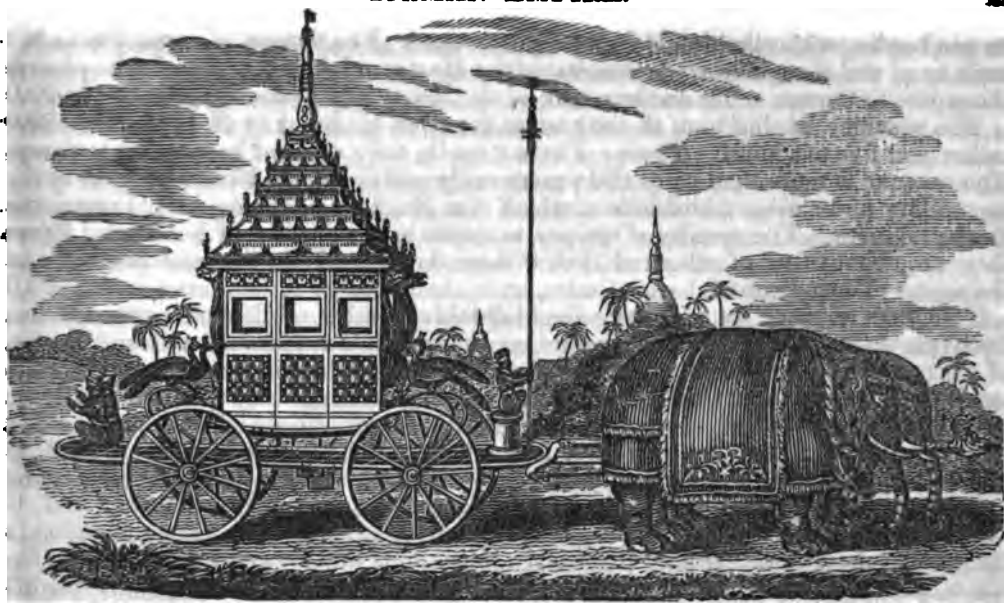
Since the last modification of the charter of the East India Company, a great change has taken place in the spirit and administration of the Indian government. Before that time, the press was under a strict censorship ; Europeans were forbidden to buy land and to settle in India ; the natives, especially the richer ones, were studiously mortified and kept under ; now, the settlement of Europeans is encouraged, and they are fast making a great change in the agriculture of India by introducing the cultivation of sugar, coffee, cotton, etc., according to European methods. The press has become perfectly free ; all public matters are openly discussed, and a great influence is thus exercised on the administration of the government. The present policy is to conciliate and bring forward the more intelligent and wealthy natives. The Persian language, introduced by Mohammedan conquerors, and which long continued the official language of the country, has been discarded, and English introduced in its place. The English is taught in schools and colleges, and is beginning to be extensively acquired by the young natives, as affording an opening to employment under the government. Domestic slavery, which formerly existed to a considerable extent, has been abolished throughout the English territories.

Encompassed by or included within the English presidencies, are several large territories, which are still governed or misgoverned, so far as local matters are concerned, by their native princes ; though they have been stripped of the right of making over or keeping up an intercourse with foreign States, and are bound, in case of war, to furnish a

certain contingent to the Anglo-Indian government. The largest of these States is the territory of the Nizam, otherwise known as the king or rajah of *Hydrabad*, who possesses about 100,000 square miles in the centre of the Indian peninsula, with about 10,000,000 of inhabitants. Joining him, on the east, is the rajah of *Berah* or *Nagpoor*, with 70,000 square miles and 3,000,000 people. Further south, and encircled by English territory, is the kingdom of *Mysore*, with 27,000 square miles and 3,000,000 inhabitants, the remaining territories of those formidable rivals of the English, *Hyder Ali* and *Tippoo Saib*. At the very southern extremity of the peninsula are the two States of *Cochin* and *Travancore*, with 8,000 square miles and 1,000,000 inhabitants. Near the western coast of the peninsula, are the three *Mahratta* States, with about 20,000 square miles and 2,000,000 inhabitants. North of the Ganges is the kingdom of *Oude*, with 20,000 square miles and 3,000,000 inhabitants; and in the north-west of India are a number of dependent States, of which *Guzerat*, with 18,000 square miles and 2,000,000 of people is the principal. The great desert and the hilly districts between the Ganges and the Indus, as well as the banks of that river, were recently occupied by a great number of princes, more or less independent, known as *Rajpoots* and *Seiks*; but all or most of these, including the whole lower valley of that river, and the famous and fertile district of the *Punjaub*, have recently been brought under British rule.

The principal reason why these native princes have been permitted to maintain so long the local administration of their respective countries, is to be found in the fact that, with very few exceptions, those countries embrace the least fertile, least populous, and least accessible parts of India, deserts, hills, or swamps, as to which the English have doubted whether the revenue would pay the expenses of government. But the incapacity and mismanagement of the native rulers becomes every day more apparent in contrast with the condition of things in the presidencies. Their people are a prey to robbers, to an ill-disciplined soldiery, or to famine, the result of excessive exactions by the government; and the necessity of displacing all the existing native princes, and consolidating all India under a uniform system of administration, becomes every day more apparent.

Much has been said and written about the oppression and extortion of the English in India. Fortunes were formerly made there by very questionable means; yet in the worst time the English were far more moderate than the native princes; and the people of India, though they have, at times, suffered severely from some ill-considered experiments as to the collection of taxes and the holding of land, have gained much in the overthrow of their native governments. This is the opinion of all the most intelligent natives. At present, the government of India is, and must long remain, in many respects, a despotism. It is exercised, however, by governors whose conduct is watched and criticised by a free press, one of the most efficient restraints known upon abuses of power, and who are responsible, not indeed to the people of India, but to the *East India Company*, the *Board of Control*, the *British Parliament*, and finally the *British people*. Hitherto, indeed, the knowledge of the condition, wants, and sufferings of India, has been confined to a limited few; but they are now beginning to attract more general attention. Railroads are beginning to be introduced, and great efforts are being made to introduce the cultivation of cotton of the American kinds and according to American methods, and the prospect now is that a large infusion of European civilization will be gradually transferred into India. But as long as the existing system of caste survives in its full strength, it is in vain to look for any decisive improvement. There are strong indications, however, that in the minds at least of the more intelligent natives, the whole fabric of *Hindu superstition*, ancient and compact as it is, is being gradually undermined.



Birmese State Carriage.

XIX. BIRMAN EMPIRE.

For the following facts and descriptions, we are indebted to the travels of the Rev. Howard Malcom, of Boston. They throw great light on the Boodhist religion, which has perhaps more votaries than any other existing faith.

"The coast at Amherst presents noble mountain scenery, but is entirely uninhabitable, as is the case also with numerous islands, and which form almost a continuous chain, a few miles from shore. Dense forests cover the whole, presenting throughout the year a rich and varied verdure. To avoid three or perhaps four days' delay in going round Tavoy Point, and up the river, I was set ashore, with a few articles of immediate necessity, at *Moung-ma-goung*, a small Birman village, eight or ten miles' walk from Tavoy. It stands nearly a mile from the shore, with wide paths and good houses, beautifully shaded by noble trees, especially the bunyatha or jack, a species of the bread-fruit. In a Birman village, the *zayat* is the only tavern. It consists of a shed with a floor raised three or four feet from the ground, and wide verandas to keep off the sun. The quality of the building varies with the wealth and generosity of the villagers. Some are truly splendid. As chairs and tables are out of the question, and as every traveller carries his own provision, here is an ample hotel. The neighbors readily furnish water, and fruits seem free. A little fire, kindled near, cooks the rice; an hour's slumber follows the unpretending meal, and all things are ready for a start.

After some repose, the cooley (or porter) having adjusted the baggage at the ends of a pole, placed it on his shoulder, and walked on as guide. After passing some patches of pine-apples, and many noble fruit-trees of kinds unseen before, we entered the jungle, and began to wind our way over the mountains, which extend along all this coast, and terminate at Tavoy Point. Though no rain had fallen since October, the foliage was fresh and intense. Flowers, great and small, beamed on us at every step, and in some places filled the air with fragrance. Innumerable vines, creeping, climbing, and depending, seemed to intertwine the trees for mutual support. A great variety of parasites clung to the branches, sometimes with very large leaves, forming a complete and beautiful sheath to the entire trunk, and sometimes sending down long stems thirty or forty feet, waving to the breeze like small ropes. The lower portions of the mountain are of coarse, gray granite, the higher parts of some friable stone with which I was not acquainted; the soil generally a stiff, reddish clay.

The town and suburbs of Tavoy contain 1,845 houses, with a population of 9,045 souls. Of these, about two hundred are Chinese men, generally married, and, of course, to Birman females. There are also Malays, Malabars, Mussulmans, etc. The streets are

in good order, with much shade, and exhibit some stir of business. Good vessels are built here, and a regular trade maintained with the chief places along the coast from Singapore to Canton. This secures bakers and many other convenient mechanics.

The province, exclusive of the city, contains 4,768 houses, and 25,143 inhabitants; or rather over five to a house. There are from thirty to forty criminal convictions per annum. The revenue is more than equivalent to the expenditure of the Company in keeping up its military and civil establishments, which is said not to be the case with any other of these provinces. The number of priests is estimated at about four hundred. Of nuns there are about fifty; of whom all I saw were beyond middle life, and generally wore the aspect of mendicants.

Two days' journey from Tavoy, a considerable number of Karens, converted in different places, have been brought together, and formed into a Christian village; the heads of every family being members of the church. These Christians now amount to about two hundred, and conduct themselves with exemplary rectitude. By the aid of the missionaries, they have obtained goats, bullocks, oil-mills, seeds, &c.; and with these, and still more by the increased industry they have been taught to practise, they have been enabled to cease their wanderings, and acquire many comforts to which their countrymen are strangers. Cleanliness, in which Karens are universally deficient, has been attained in no small degree. The men have been exhorted to raise plenty of cotton, and the women induced so to apply themselves to spinning and weaving, as to furnish every one of their families with a change of raiment. They now wash their garments often, which before they scarcely ever did. Their ground, under their houses, which always used to be receptacles for filth and vermin, is all swept out clean every Saturday afternoon, and the rubbish burnt. On Sunday, they come to public worship perfectly clean, and, as their costume covers the person entirely, the sight would please the most fastidious American eye.*

The city of Maulmein was only a few years ago a jungle, though some intelligent natives affirm that it was once a large city, and the metropolis of a Shyan kingdom, then independent. After the cession of these provinces to the English, it was selected as a military post, and a town sprang up, which has continually increased, and numbers now 18,000 souls. The rest of the province contains about 30,000 more, of whom some thousand are Karens and Tounghoos. The city consists principally of one street, which extends along the river about two and a half miles. The river is about a mile wide, with a tide of twenty feet perpendicular rise. In the rear, distant about a quarter of a mile, is a long, narrow hill, running parallel to the river, presenting along its summit a string of pagodas mostly fallen to ruin. From a fine road, made here by Sir A. Campbell, the whole city, with the river, shipping, and high hills on the opposite island of Balu, are in full view. The location of the city has been found exceedingly salubrious, and gentlemen in the Company's service are glad to resort hither for health, from the opposite shore of the Bay of Bengal. The settlement is too recent to be adorned with noble shade-trees, like Tavoy and Mergui, but is well laid out, and the Birman, always tasteful in such matters, have planted them to a sufficient extent. Over the water-courses are handsome bridges of substantial masonry; and fine roads are made in various directions.

Being the metropolis of British Birmah, the commissioner or acting governor resides here. The garrison consists of a regiment of the line, a detachment of artillery, and some companies of sepoys. The officers of this force, and the gentlemen connected with the civil service, make a considerable circle of English society, which, with soldiers, traders, &c., and their families, insure all the conveniences of an abundant market, various mechanics, and well-supplied shops. In the market may always be had fresh beef, pork, goat, venison, and poultry, butter, eggs, milk, &c., with great plenty of the finest fish, fruits, and vegetables. In passing through it one day, I counted thirty-two different kinds of fruit, besides vegetables. The price of articles, with some exceptions, is cheaper than in our cities,—fowls, two rupees a dozen; rice, half a rupee a bushel. The best of baker's wheat-bread is sold at about our rates, and British goods are in general cheaper than with us. On the whole, it is perhaps as pleasant and desirable a residence as any part of the East.

* Friends who wish to make little presents to the Karen Christians, might send fine-tooth combs, brown soap, writing-paper, slates and pencils, quills, strong scissors, cotton cloth, thread, large needles and penknives. Gifts of any description are not wanted.

On commerce and trade there are no restrictions. Vessels pay no tonnage, and merchandise no duty. Even pilotage is established at low rates, and such as choose to dispense with a pilot, pay only a small sum, for the benefit of the buoys. Ship and boat building, on English and native models, is done to the amount of some thousand tons per annum.

The imports from Tavoy and Mergui are principally attaps, or dennees, (leaves stitched upon strips of ratan, ready for thatching,) damar torches, cardamoms, sapan wood, gnappee, ratahs, preserved doryans, mats, salt, yams, and ivory. In return are sent to these places cotton, oil, English goods, paddy, beef, lime, and tamarinds.

From Rangoon are imported cutch or catechu, stick lac, gram, oil-seed, earth-oil, sesamum-oil, lappet, (tea) wheat, ivory, lackered ware, glazed pottery, jaggery, (black sugar,) Birman silks, tamarinds, chillies, garlic, &c.; and in return are sent areca-nuts, cotton, dates, English goods, cocoa-nuts, &c.

From Penang are brought umbrellas, muskets, torches, dates, coffee, &c.; and in return are sent chiefly paddy and rice.

From Calcutta are brought specie, English goods, wines, ginger, steel, rose-water, sugar; and almost the only important return is teak timber. The same may be said of Madras. This is about the whole commerce of Maulmein. From eight to twelve vessels enter and clear per month.

Among the inhabitants are 500 Chinese, and above 2,000 other foreigners, most of whom are from Bengal and Madras. Each class has a place of worship, and adheres to its national costume and habits. The English have a Company's chaplain, and a spacious church. Here service is regularly performed, and the troops are required to attend. The English Baptist church have also a good meeting-house of teak, and one of the missionaries always acts as pastor. At present, Mr. Osgood discharges this duty, in connection with his engagements at the printing-office.

Though there is not the slightest restraint upon idolatry in these provinces, the people are certainly less devoted to their superstitions than before the war. It is scarcely possible to discover from the appearance of the streets, when the worship-days occur; and the number of priests is much less than it would be among an equal population in Birman Proper. The people are evidently ripening for some change. There is therefore eminent necessity for following up, with the utmost vigor, the means for extending Christianity. The morals of the people would greatly suffer by the loss of their religious system, if no other were to be substituted. Such a crisis is not altogether improbable, and the people of God are most affectingly called upon, by the state of the case, to send out more teachers forthwith.

Still, Boodhism is as yet by no means a neglected system. New pagodas are making their appearance in different parts of the city. There are twenty-nine kyongs, containing somewhat more than 500 priests, including novitiates, who are plentifully supported. The kyongs are vastly superior to the dwellings of the common people, and some of them are situated in delightful groves with ample grounds. Here and there is a sacred banyan-tree, carefully nurtured, and occasionally lighted with lamps at night. In the city and suburbs are seventy-eight pagodas.

The name of *Rangoon* is so conspicuous in the annals of our mission, and occurs so often in the narratives of travellers on this coast, that I naturally entered it with feelings of peculiar interest. Association of ideas, of course, keeps up some of that interest; but so wretched a looking town, of its size, I have nowhere seen. The city is spread upon part of a vast meadow, but little above high tides, and at this season resembling a neglected swamp. The approach from the sea reveals nothing but a few wooden houses between the city wall and the shore. The fortifications are of no avail against modern modes of attack. They consist of merely a row of timbers set in the ground, rising to the height of about eighteen feet, with a narrow platform running round inside for musketeers, and a few cannon, perhaps half a dozen in all, lying at the gateways, in a useless condition. Some considerable streets are back of the town, outside the walls.

The entire population is estimated at 50,000, but that is probably too much. There is no other seaport in the empire, but Bassein, which has little trade, and the city stands next in importance to Ava; yet there is literally nothing in it that can interest a traveller. A dozen foreigners, chiefly Monguls, have brick tenements, very shabby. There are also four or five small brick places of worship, for foreigners, and a miserable custom-house. Besides these, it is a city of bamboo huts, comfortable for this people, consider-

ing their habits and climate; but in appearance as paltry as possible. Moulmein has already many better buildings. The eaves of the houses generally descend to within six or eight feet of the ground; very few being of more than one story, or having any other covering than thatch. Cellars are unknown, and all houses are raised two or three feet above the ground for coolness and ventilation. As the floors are of split bamboo, all dirt falls through, and what is not picked up by crows, dogs, fowls, &c., is occasionally swept out and burned. For nearly half the year, the city presents a most singular appearance, half sad, half silly. By a standing law, on the setting in of the dry season, all the thatch must be removed, except a particular kind, not common, made partly of split bamboo, which will not easily burn. Were it not for the people in the streets, and the cloths of various kinds put up in the houses to keep off the sun, it would seem at these times, like a city deserted.

The streets are narrow, and paved with half-burnt bricks, which, as wheel-carriages are not allowed within the city, are in tolerable repair. There is neither wharf nor quay. In four or five places are wooden stairs, at which small boats may land passengers; but even these do not extend within twenty feet of low-water mark. Vessels lie in the stream, and discharge into boats, from which the packages, slung to a bamboo, are lugged on men's shoulders to the custom-house.

The commerce of the place is still considerable, though greatly crippled by enormous port-charges, and absolute prohibitions against exporting rice or the precious metals. Specie is exported, but only by adroit smuggling. Could rice be exported freely, a most beneficial trade, both to government and people, might be carried on, the agriculturist receive a better reward for his toil, and the price of land be raised throughout the kingdom. Paddy is now selling at five rupees the hundred baskets; that is, about \$2,50 for a hundred bushels!

Ava is surrounded by a wall twenty feet high, embracing a space of about seven miles in circumference. Within this is a considerable area, enclosed by a better wall, with a broad, deep ditch, called 'the little city.' This space is chiefly occupied by the palace, hall of justice, council-house, and the dwellings of some of the nobility, but contains also some well-built streets, and many inhabitants. The palace itself, and public buildings, are enclosed in a third wall, which is itself enclosed in a stockade. A very large part of the city is outside of all these walls, on the margin of the rivers. On the east is the river Myet-nga, or Little River, a fine stream, a hundred and fifty yards broad, extending far into the interior. The Irrawaddy, opposite the city, is without islands, and compressed to a breadth of eleven or twelve hundred yards.

The sacred edifices, as usual, are the prominent objects, which, on every side, seize the attention. They are almost as numerous as at Pagan, and some of them of equal size. Viewed from the river above, their white and gilded spires give the city an exceedingly imposing appearance, which is not realized on entering it.

The pagodas are even more various in their shapes than at Pagan, and far surpass in taste and beauty any I have seen. Most of them are over one hundred feet high, and some more than two hundred. Colossal images of bell-metal, marble, and brick, covered with stucco, are innumerable. One which had just been finished out of a solid block of white marble, is truly stupendous. I had no mode of taking his vast proportions, but measured his hand, and found the breadth twenty inches. As his proportions were just, this would make his height, had he been in a standing posture, about thirty-five feet.

It is said there are in the city twenty thousand priests, including novitiates; and the number and size of the monasteries seem to sanction the computation. The queen's monastery has five hundred; and that which I have described above had three hundred regular priests, and about the same number of novitiates. It should be remembered that they are in fact colleges, and nearly all who are receiving a regular education are in them as novices.

These buildings are found in almost every part of the city, enclosed by fine brick walls and shady walks. They are the only specimens of beauty and grandeur which the city can boast, except the pagodas, the palace, and a few *zayats*. Aristocratic feelings prevail even in these abodes of pretended sanctity; and into some of them, now but youth of the higher classes are admitted. A number of our disciples, who have been novitiates, speak unfavorably of the morals of the priesthood. Dressed like other citizens, they may go anywhere after dark without being recognised.

The palace is entirely of wood. It consists of nearly a hundred buildings, of different sizes, and occupies a space about a quarter of a mile long, and almost as broad. The roofs all have the royal order of architecture. The hall of audience is in a sumptuous and convenient building, standing on a terrace of stone and mortar, which constitutes the floor, and is coated with stucco, hard and polished. Lofty pillars, richly carved, support the roof, and, like the rest of the building, are covered with gold. The roof rises like a steeple, with many stages, and is a hundred and ninety-five feet high.

The streets of Ava cross each other at right angles, and are wide, straight, and clean, but not paved. The centre is kept smooth and clean for foot passengers, while the sides are appropriated to wheel-carriages, elephants, &c. Much of the labor of transportation is done by bullock carts. Their bodies are framed of timber, with bamboo yoke, and the wheels of wood, without tire. I saw no horses used for draught; but handsome bullock carriages are used by the wealthy. They are without seats, of course, and the floor is nicely matted or cushioned. The animals, being used only for this purpose, trot along quite briskly. Around their necks are strings of bells. The houses are not generally better than in other large towns, but, thatch being entirely prohibited, they look more respectable. The roofs are covered with short pieces of bamboo, so arranged as to look exactly like shingles. Great men generally live in the centre of some square, surrounded by the houses of their many retainers. Most of them have a good brick building, of two or three rooms, intended not for occupancy, but as a fire-proof depository for their valuables. These have very lately become common, and with some fine brick monasteries just erected, and a sort of arsenal now in progress, indicate a general introduction of brick houses. Nothing but the absurd prohibition of the government has prevented this long ago. In some of these enclosures are pleasant gardens and fruit-trees.

As to the population of the city, I was at much pains to obtain correct information. The accounts obtained from government officers did not differ much from each other. They said a census was recently taken, which gave 30,000 houses for the city and suburbs, without including any adjacent villages, and that ten per cent. ought to be added for omissions. They computed seven persons to a house, and thus make the population 200,000. As the government actually receives taxes on 30,000 houses, there does not seem room for estimating the number lower; but I am confident it must include the district. Mr. Crawford allows only 30,000. A severe fire occurred just before my arrival, which was reported by the proper officers to the king, as having destroyed 1,000 houses, beside huts and temporary residences. I examined the ground carefully, and compared it with the rest of the city, over all of which I rode, repeatedly. The result of the whole induces me to estimate the population of Ava at about 100,000. The whole city and kingdom being divided into tens of houses, under an officer, and every ten of these officers being under a superior, who has charge of them and their hundred houses, a census, at least under the very eye of government, must be tolerably correct. Taxes are assessed on families as such, without regard to wealth. The head man is the tax-gatherer. If he can tax one hundred houses, and report only ninety, he puts the balance into his pocket. A Birman census is thus almost always less than the truth.

The city abounds with shops, containing nearly every article of foreign goods, and an ample number of mechanics; though in some particular branches there are none. I purchased specimens of carpentry, jewelry, tin-ware, toys, d^{as}, lackered boxes, earthenware, gongs, &c., which were highly creditable to their skill. Their boat-building, carving, sculpture, gilding, basket-making, and weaving, are as good and ingenious as in America, for aught I could see, making due allowance for the differences of form, &c., established by national custom. I got some paintings executed in their best style by native artists, one of whom is the king's painter, which are about equal to the pictures on common clocks and looking-glasses. In landscapes they fail utterly, having no idea of perspective. Many of our trades are wholly unknown to the Birmans.

The climate of Ava, most of the year, is delightful. The cool season lasts from the middle of October to the early part of April. During this period, heavy fogs prevail early in the morning, but they soon disperse, and leave a sunny sky. The thermometer at night, and toward morning, descends to 45° or 50°; sometimes, though very rarely, to 40°; rising in the middle of the day to 60° or 70°. Toward the end of April it begins to be hot, and the last of that month and whole of May are the trying portion of the year. The thermometer ranges from 85° to 100°, rising sometimes even to 110°, in a

fair exposure at mid-day; but it is always many degrees cooler at night. About the 1st of June, some dashes of rain occur; the sky is always cloudy, and the periodical inundations of the river spread vast sheets of water over the low grounds. Then, with the south-west monsoons, which rarely intermit, spread a cool freshness on every side. The present is the rainy season on the coast, and on the mountains north of Ava, but around the city it rarely rains; in some years, so little as to cut off all crops, and create almost a famine. It was during this period that my time was spent in Ava, and more delicious weather could not be. The thermometer has not been above 93°, and rarely above 87°. The average at mid-day has been about 83° or 84°. Before morning, I always find it necessary to draw over me a flannel sheet. The river is now from thirty to forty feet above its common level. About the middle of August, the waters begin to subside; the clouds are less dense; and for a short time very hot weather returns, but not so oppressive as in May. The cool season then sets in, as above mentioned. The river owes its rise not so much, to rain in the upper country, as to the rapid melting of the snow on the lofty mountains connected with the Himalaya range, where the Irrawaddy rises, in common with the Kyendween, Burampooter, and great Camboja rivers.

Umerapoora was nearly desolated by a dreadful fire in 1823; but though within the walls it remains desolate, the suburbs have grown to a city at least as populous as Ava itself. A large number of Chinese reside here, and carry on a considerable trade with their own country by the annual caravans. They are Boodhists, as most of the common Chinese are, and have a showy temple, with an adequate supply of priests. We sought refuge there in a shower, and were courteously received. They listened to the good news with decorum, and accepted Birman tracts, in which language many of them read. During our visit, a number of Birmans came and made their offerings and sheeko to the image.

There are various wonders at Umerapoora, such as the great and boasted bell, (Birmans are marvellously fond of vast bells;) the brass cannon, almost the largest in the world; the stupendous brazen image of Gaudama, brought from Arracan; the girl mentioned in Mr. Kincaid's journal, and by Major Crawford, as being covered with long, fine hair, &c.; but I could not spend the time necessary to see them, and, procuring a bullock cart, rode about to see the localities, extent of population, &c.

It seems important to locate at least two missionaries at this place, not only for the 100,000 inhabitants, but for the thousands of Chinese who may here be reached. One of the missionaries might study Chinese, and be prepared at a future day to accompany the caravan to Yunnan. The government would not interfere to prevent the conversion of foreigners, and the converts which we are bound to hope and believe would be made, might become most efficient missionaries to their countrymen.

A few miles back of the city, the Chinese have some plantations of sweet cane, and manufacture a large quantity of excellent brown and yellow sugar. I purchased some as good as our best yellow Havana, at about four cents a pound.

The immediate cognizance of the king secures this part of the empire from many of the severe oppressions, under which more distant sections constantly groan; and tends in several other ways to increase its comparative population. It is, beyond doubt, the most densely inhabited part of the kingdom. Those whom I deemed best able to inform me, stated that within a radius of twenty miles, there must be at least half a million of people.

Sandoway, the capital of the district of that name, which embraces all the southern part of Arracan, is situated on the Sandoway River, about twelve miles from the sea. It has a population of 4,000, chiefly Birmans and half-Birmans; the rest are Mugs. No spot in India is considered more healthful than this. From hence a missionary might operate extensively, not only in south Arracan, but up the Bassein River, and the islands at its mouth, in Birman Proper. The British officer there is anxious for the settlement of a missionary, and would afford him every possible facility. It is the only spot, beside those which have been named, where a missionary could hope to live during the sickly season; except perhaps Aeng, where a British commissioner, &c., reside throughout the year, though at great hazard. No officer has been able to retain his health there, and several have died.

Of the province of Arracan, I need not add much to the remarks on particular districts which have already been given. It is called, by the natives, *Rakhain*, and is bounded

mouth by the river Naaf, and a line from near its sources, eastward to the A-nou-poo-miou, or Yomadong mountains, which divide it from Birmanah the whole length down to Cape Negrais. On the west is the Bay of Bengal. The length is about 470 miles. The breadth never exceeds 100, and sometimes is only 10—average about 60. It is estimated to contain about 17,000 square miles, of which but one twenty-fourth part is cultivated, though almost every part is capable of tillage.

The population is usually given in books at 300,000, but, by the last official returns, is only 237,000. The country is divided into four districts, viz., Akyab, Ramree, Sandoway, and Aeng; of which Akyab has 108,166 inhabitants; Ramree, 68,934; Sandoway, 22,976; and Aeng, 11,751. In addition to these, there are hill tribes, not regularly numbered, amounting to about 25,000.

Arracan was formerly the principal city, and very large. It is now reduced to 3,000 inhabitants, and is still diminishing. Its trade has passed to Akyab, at the mouth of the river, a site selected by the English for its advantageous position for health and commerce, and now rapidly growing. The old city has been always fatal to foreigners, though a favorite residence with the Mugs. The Birmans, who used to come with the governor when the country was their province, could not endure it. When the British took it and established a camp there, two full European regiments were reduced, in a few months, to three hundred men in both,—and even of sepoy and camp-followers from forty to fifty died per day. Perhaps the particular circumstances of that army gave force to the pestilence, for nearly the same dreadful diminution attended the army in Rangoon, confessedly one of the healthiest places in the world.

This country is regarded as the parent hive of the Birman race and language. They are certainly much less intelligent than the Birmans, and the country less prosperous, doubtless in consequence of frequent and desolating wars, and long oppression. The written language is precisely the same as the Birman; but the pronunciation of many letters is so different, as to make a dialect not very intelligible to Birmans. Why the language and people are called *Mugs*, rather than *Arracanese*, is not very clear. I was generally assured that it is derived from a race of kings, who reigned at the time the country first became much known to Europeans. They regard the term as a contemptuous nickname, and universally call themselves *Mrammas*. This name they declare to be usurped by the Birmans, whom they call *Ouk-tha*, or people of the low country. The Birman in turn takes this epithet as an insult.

The climate of Birmanah differs greatly in the higher and lower districts, but is every where salubrious to natives, where the jungle is cleared. Ample proof of this is visible in their robust appearance and muscular power. Foreigners find most parts of the sea-coast salubrious, to a degree not found in most other parts of India.

In the maritime part of the country, there are two seasons—the dry and the rainy. The latter begins with great uniformity, about the tenth of May, with showers, which gradually grow more frequent, for four or five weeks. It afterward rains almost daily till the middle of September, and occasional showers descend for a month longer. From one hundred and fifty to two hundred inches of water fall during this period. This quantity is truly astonishing, as in the moist western counties of England, it is but sixty inches in a year. It seldom rains all day, so that exercise, and out-door business may be continued, though at times it rains almost incessantly for several days. As the sun shines out hot almost daily, vegetation proceeds with amazing rapidity; and every wall or building not coated smoothly with plaster, becomes in a few seasons covered with grass and weeds. This is the only period when any part of the country becomes unhealthy to foreigners, and even then the courses of great rivers, and parts extensively cleared, remain salubrious. On the subsiding of the rains, the air is cool, the country verdant, fruits innumerable, and everything in nature gives delight. The thermometer ranges about 60° at sunrise, but rises 12° or 15° in the middle of the day. In March, it begins to grow warm; but the steady fanning of the north-east monsoon makes it always pleasant, when out-door exertion is not required. In April, the heat increases, and becomes for two or three weeks oppressive; but the first dashes of rain bring relief.

Between tide-water and the mountain regions at the north and east, there may be said to be three seasons—the cool, the hot, and the rainy. The cool season begins about the same time as in the lower provinces, and continues till the last of February, making about four months. The thermometer now descends to about 40°, at the lowest. This temperature is only just before morning. In the middle of the day, it is seldom colder.

than 60°. The greatest heat is far less than on the Madras coast; averaging, in the hottest weather, from 85° to 90°, but rising sometimes much higher.

In the most elevated districts, there are severe winters; but of those sections no precise accounts have been received.

Much of Birmanah is decidedly mountainous, particularly to the north and east of Ava; but few of the ranges have names, at least not in our language. The natives seem to designate particular heights, but not entire ranges; and Europeans have not explored these parts of the country. The barrier which divides Birmanah from Arracan, called in maps A-nou-pec-too-miou, is lofty and well defined. The coasts near Tavoy, and the islands adjacent, are mountainous. But at present, nothing instructive can be said as to this feature of the kingdom.

Few countries have had their population so variously estimated. Old geographies stated it at 30,000,000; Symes made it 17,000,000; Cox afterwards reduced it to 8,000,000; and Balbi allows it only 3,700,000. The chief woon-gyee at Ava informed me that the last census gave a total of 300,000 houses. Allowing a fraction short of seven persons to a house, this would make 2,000,000; presuming one third of the houses to have escaped enumeration, we have 3,000,000. After the most careful inquiries, I am led to put down the number of the inhabitants, to whom the Birman tongue is vernacular, at 3,000,000. This estimate was confirmed by many persons and numerous facts. The Shyans are probably 3,000,000 more, and, with other subsidiary tribes, bring up the total population to about the estimate of Cox.

The people, though not so tall as the Hindus, are more athletic. The average height of men is about five feet two inches, and of women four feet ten inches; that is to say, about four or five inches shorter than the average height of Europeans. Women have more slender limbs than men, but are universally square-shouldered. Corpulence is not more frequent than in this country. In features they are totally dissimilar to the Hindus, and rather resemble the Malays, especially in the prominence of cheek-bones, and squareness of the jaw. The nose is never prominent, but often flat, and the lips generally thick. The complexion of young children, and those who have not been exposed to the sun, is that of our brightest mulattoes. Few, except among the higher classes, retain this degree of fairness, but none ever become, by many shades, so black as Hindus. I saw few whose complexions were clear enough to discover a blush. The standard of beauty seems to be a delicate yellow; and in full dress, a cosmetic is used by ladies and children which imparts this tint. It is remarkable that this hue should be admired not only here, but amongst the almost black natives of Hindustan, and the many-colored inhabitants of the islands of the Indian Ocean.

The hair of the head is very abundant, always black, rather coarse, and rendered glossy by frequent anointings. On the limbs, and breast there is none, strongly contrasting in this respect with Hindus, whose bodies are almost covered with hair. Their beard is abundant on the upper lip, but never extends over the cheeks, and is but scanty on the chin.

Puberty does not occur much earlier than with us; women bear children to nearly as late a period. The average length of life seems not perceptibly different from that of Europe.

Dwellings are constructed of timbers, or bamboos set in the earth, with lighter pieces fastened transversely. When good posts are used, they are set seven feet apart; lighter ones and bamboos are placed closer. A frame set on stone or brick pillars, is never seen. The sides are covered, some with mats, more or less substantial and costly; or with thatch, fastened with split ratans. The roof is usually of thatch, even in the best houses. It is very ingeniously made and fastened on, and is a perfect security against wind or rain. The cheapest is made of strong grass, six or seven feet long, bent over a thin strip of cane four feet long, and stitched on with ratan. A better kind is made of attap or dennée leaves, in the same manner. These are laid on like wide boards, lapping over each other from twelve to eighteen inches. They cost a mere trifle, and last about three years.

The floor is of split cane, elevated a few feet from the earth, which secures ventilation and cleanliness, and makes them far more comfortable and tidy than the houses of Bengal. The open crevices between the slats, however, too often invite carelessness, by suffering offal and dirty fluids to pass through; and not unfrequently, among the lower ranks, the space under the house is a nasty mud-hole, alive with vermin. The doors

and windows are of mat, strengthened with a frame of bamboo, and tied fast at the top. When opened, they are propped up with a bamboo, and form a shade. Of course there are no chimneys. Cooking is done on a shallow box, a yard square, filled with earth. The whole house may be put up in two or three days, at an expense of from sixty to one hundred rupees, though many do not cost half that sum. Posts of common timber last from ten to fifteen years, iron-wood forty or fifty, and good teak eighty or a hundred. The houses of the more opulent, in large towns, are built of wood, with plank floors, and pannelled doors and window-shutters, but without lath, plaster, or glass.

Such houses furnish a fine harbor for spiders, worms, lizards, and centipedes, but create no inconvenience in general, except the particles of dust which are constantly powdered down from the thatch, as the worms eat it up. The lizards are not only harmless, but useful, by consuming flies, musquitoes, &c. The centipedes are poisonous; but it is very rare that any one is bitten, and the result is merely a painful swelling and inflammation for a few days.

The rank of the opulent is particularly regarded in the architecture of the dwelling, and a deviation from rule would be instantly marked and punished. The distinction lies chiefly in hips or stages in the roof.

The whole of the architectural skill of this people is by no means exhibited in their dwellings. Some of the zayats, pagodas, and temples, are truly noble. There can be no doubt but that, if the people were not prohibited, they would often erect for themselves substantial stone or brick buildings. It has been said that they have lost the art of turning an arch, but this is wholly a mistake. I have seen many fine arches, of large span, evidently erected within a few years, and some not yet finished, constructed wholly by Birman masons. The stucco, which covers all buildings, is put on with extraordinary durability, and generally with tasteful ornaments. Floors and brick images, covered in this way, have often a polish equal to the most exquisitely wrought marble. The mortar is made of the best lime, and sand, with a liberal mixture of jagery, but without hair. No one can form a proper estimate of Birman architecture who has not visited Ava, or one of the ancient seats of government. Religious structures are here far more numerous and magnificent than in distant parts of the empire. As in other countries, the state religion shines most, in temporal endowments and honors, in the neighborhood of the metropolis.

Though Birmans spend all their zeal on useless pagodas, there are near the capital some other structures of public utility. Some tanks have been constructed, which secure irrigation and consequent fertility to a fine region of adjacent country. One of these, near Mokesobo, is truly a noble work. Across the little river at Ava, and the marsh adjacent, is a very long bridge, which I have not seen surpassed in India, and scarcely in Europe. Various other edifices, both civil and military, ornament the metropolis, and would do honor to any people.

Ship-building, on European models, is conducted on an extensive scale at Rangoon. Colonel Franklin computes that, from 1790 to 1801, three thousand tons were built thus in that city. The cost of such vessels is a third less than at Calcutta, and a half less than at Bombay. Native vessels are very numerous, owing to the absence of roads, and the great size and number of the water-courses. These are very ingeniously constructed, and admirably adapted to inland navigation, though utterly unlike anything seen in this country. Some of them are of two hundred or two hundred and fifty tons burden. The canoes are often large enough to carry eight or nine tons. In excavating these, they do not first remove half the tree, but open only a narrow groove, and, after the excavation, widen it by fire. A single log thus makes a boat seven or eight feet wide. When opened to this extent, it is common to add a board, a foot wide, round the edge.

Cotton and silk goods are made, in sufficient quantity to supply the country. Some of them are fine and beautiful, but in general they are coarse and strong, and always high-priced. In getting the seed from the cotton, they universally use a small and ingenious machine, of which a good idea may be got from the picture. It consists of two small cylinders, in contact, one of which, moved by a crank, turns the other: the cotton is drawn through, and leaves the seed behind. One person cleans thus ten viss, or thirty-six pounds, per day. About two thirds of the weight is left in seed. The seeds, sprinkled with oil, are used for torches at festivals, &c., in the open air. The whole process of making cotton and silk goods from the raw material is managed by women.

The spinning-wheel is like ours, only smaller, and without legs, as the people sit on the floor. In preparing the rolls, they have nothing like cards, and, after whipping it fine with a furrier's bow, they form the rolls with their fingers.

Their loom differs in no respect, that I could discover, from our common loom in America, except that for foot-paddles they have rings or stirrups, in which the feet are placed. When figures are to be introduced, however, the mechanism is ingenious, and the labor very tedious. The colors for this purpose are each on a separate bobbin, or shuttle, passed back and forth with the finger, as the weaving advances. In this manner, the stripes have both warp and woof of the same color, like ribbons put together. Sometimes a more curious process is adopted, which carries the figure aside into other stripes, in a manner which no British loom could imitate. To comb the warp, they use the fruit of the sahtah, a strong grass, eight or ten feet high, with jagged, thorny leaves. The fruit is the size of an ostrich egg, having a shell like a young pine bur. This being removed, leaves a sharp, strong hair, which makes an excellent brush for the purpose.

The process of dying is well understood, and the colors are beautiful and various; but, probably for want of proper mordants, or from frequent wetting and strong sun, they are apt to be transient. The colors of silks, however, are permanent.

On the whole, the Birmans are fully entitled to be called a civilized people. A regular government, a written language, an established literature, a settled abode, foreign commerce, respectable architecture, good roads and bridges, competent manufactures, adequate dress, gradations of rank, and the condition of women, conspire to establish their claim to be so considered. Their exact place in the scale of civilization is not so easily settled. In intellect, morals, manners, and several of the points just named, they are not surpassed by any nation of the east, and are certainly superior to any natives of this peninsula. Prior to the recent entrance of Europeans, the degree of civilization, whatever it was, seemed to be fixed and complete. No change in laws, habits, manufactures, food, dwellings, poetry, painting, or indeed anything else, had been made for centuries, or if made, yet so slowly as to impart no excitement to the public mind. Now, the case is decidedly different. They not only have contact with many Europeans, but confess inferiority, and in some things are adopting our modes and manufacture. In the Tenasserim provinces, this is especially the case; and should England resign those possessions, the effects of her dominion on the population will remain and extend. If the present king should retain the views of state policy which he expressed to me while a subject, and which he is the fittest man in the kingdom to execute, Birmah must rapidly rise in political importance.

Boodhism is probably, at this time, and has been for many centuries, the most prevalent form of religion upon earth. Half of the population of China, Lao, Cochin-China, and Ceylon; all of Camboja, Siam, Birmah, Thibet, Tartary, and Loo-Choo; and a great part of Japan, and most of the other islands of the Southern Seas, are of this faith. A system which thus enchains the minds of half the human race, deserves the attention of both Christians and philosophers, however fabulous and absurd.

Chinese accounts make the introduction of Boodhism into that empire to have occurred about A. D. 65. Marshman supposes the Siamese and Laos to have received the system about three centuries before Christ. A very great increase of the Boodhist faith is known to have occurred in China early in the sixth century, which may have resulted from the flight of priests with him, about that time, from the persecution of the Brahminists.

Boodh is a general term for divinity, and not the name of any particular god. There have been innumerable Boodhs, in different ages, among different worlds, but in no world more than five, and in some not any. In this world, there have been four Boodhs, viz., Kan-ka-than, Gau-na-gong, Ka-tha-pa, and Gaudama. In the Siamese language, these are called Kak-a-san, Ko-na-gon, Kasap, and Kodom. One is yet to come, viz., Aree-ma-day-eh.

It has been often remarked, that Gaudama was one of the incarnations of Vishnu, and appeared in the form of a cow. This idea has probably originated with the Hindus, and is advanced to support their assertion, that this religion is a branch of theirs. But no two systems can be more opposite, or bear less evidence of one being derived from the other. Brahminism has incarnations, but Boodhism admits of none, for it has no permanent God. If, in its endless metempsychosis, any being should descend from the highest forms of existence, to take human nature, it would not be an incarnation.

of Deity, but a real degradation of being, and the person so descending would become, *literally*, a man. If he ever rise again, it must be by another almost infinite change, now to better, and now to worse, as merit is gained or lost. While Hinduism teaches one eternal deity, Boodhism has now no god. That has a host of idols; this only one. That enjoins bloody sacrifices; this forbids all killing. That requires atrocious self-tortures; this inculcates fewer austerities than even Popery. That makes lying, fornication, and theft, sometimes commendable, and describes the gods as excelling in these enormities; this never confounds right and wrong, and never excuses any sin. That makes absorption into Deity the supreme good; this annihilation.

The great doctrines of this faith are five; viz. 1. The eternal existence of the universe, and all beings. 2. Metempsychosis. 3. Nicban, or annihilation. 4. The appearance, at distant periods, of beings who obtain deification and subsequent annihilation. 5. The obtaining of merit. Of the first four of these, enough has been already said. The last is more deserving of notice, embracing, as it does, the whole system of morals.

Merit consists in avoiding sins, and performing virtues; and the degree of it is the sole hope of the Boodhist. The forgiveness of sins, and the receipt of favor through the merit of another, are doctrines unknown. That suffering can be in any way regarded as a blessing, is to him absurd.

The sins which are to be avoided are described in a moral code, consisting of five principal and positive laws:—1. Thou shalt not kill. 2. Thou shalt not steal. 3. Thou shalt not commit adultery. 4. Thou shalt not lie. 5. Thou shalt not drink any intoxicating liquor. These are explained and branched out so as to include all sins of the same kind, under each head. The first of these laws is extended to all killing, even that of animals for food. The very religious will not kill vermin. War and capital punishments are considered forbidden by the first law.

Sins are divided into three classes:—1. Those of the body; such as killing, theft, fornication, &c. 2. Those of the tongue; as falsehood, discord, harsh language, idle talk, &c. 3. Those of the mind; as pride, covetousness, envy, heretical thoughts, adoring false gods, &c.

The sacred books portray strongly the evils of pride, anger, covetousness, and inordinate appetites. Men are urged to avoid excessive perfumes, ornament, laughter, vain joy, strong drink, smoking opium, wandering about the streets in the night, excessive fondness for amusements, frequenting bad company, and idleness. Those who aspire to Nicban are cautioned to abhor sorcery, not to credit dreams, nor be angry when abused, nor elated when approved, not to flatter benefactors, nor to indulge in scorn or biting jests, and most carefully to avoid enkindling strife.

The states of the mind are resolved into three classes:—1. When we are pleased in the possession of agreeable things. 2. When we are grieved and distressed by evil things. 3. When neither do good things gratify us, nor evil things distress. The last is the best state; and in it a man is rapidly preparing for Nicban. In this there is no small resemblance to the doctrine of the Stoics, and some approach to the Christian doctrine of weanedness from the world. Some of their books abound in good comparisons; such as, that he who runs into sinful enjoyments is like a butterfly, who flutters round a candle till it falls in; or one who, by licking honey from a knife, cuts his tongue with the edge. There is scarcely a prohibition of the Bedagat, which is not sanctioned by our Holy Scriptures; and the arguments appended to them are often just and forcible.

Merit is of three kinds:—1. *Thela*, or the observance of all the prohibitions and precepts, and all duties fairly deducible from them; such as beneficence, gentleness, integrity, lenity, forbearance, condescension, veneration to parents, love to mankind, &c. 2. *Dana*, or giving alms and offerings. This includes feeding priests, building kioungs, pagodas, and zayats, placing bells at pagodas, making public roads, tanks, and wells, planting trees for shade or fruit, keeping pots of cool water by the way-side for the use of travellers, feeding criminals, birds, animals, &c. 3. *Bawana*, or repeating prayers, and reading religious books. Of this last, there are three degrees, or sorts; the first consisting in merely reciting prayers, or reading thoughtlessly; the second, and more meritorious, is praying or reading, with a mind attentive to the exercise; the third, and most excellent, is the performing these exercises with strong desires and awakened feelings. He who neglects to lay up merit, is compared to a man who sets out on a journey through an uninhabited country, beset with wild beasts, and provides himself neither with food nor weapons.

It has been observed by travellers that this people is remarkably tolerant in religious matters. In a restricted sense, this is certainly true. Foreigners of every description are allowed the fullest exercise of their religion. They may build places of worship of any kind, in any place, and have their public festivals and processions, without molestation. But no nation could be more intolerant to their own people. No Burman may join any of these religions under the severest penalties. Despotic as is the government, in nothing does it more thoroughly display that despotism, than in its measures for suppressing all religious innovation, and supporting the established system. The whole population is divided into allotments of ten families, under a petty officer. Over every ten of these allotments is another officer, to whom the others report. These chiefs of a hundred families are under the supervision of a higher officer, who takes cognizance of all causes. On stated days, every chief of ten families is required to bring ~~forth his~~ company to the appointed observances. He does not indeed notice mere remissness; but if any person be habitually absent, he must produce either a good reason or a ~~fine~~. The whole population is thus held in chains, as iron-like as caste itself; and to become a Christian openly, is to hazard everything, even life.

In the British provinces, the national faith, being robbed of the support of the ~~state~~ arm, seems to be cherished so much the more by national feeling. Expectancy ~~that the~~ religion of the new rulers may spread, seems to awake greater vigilance that it may ~~not~~. Pagodas, kyoungs, and priests are well supported, and the clergy seem anxious to ~~obtain~~ popular favor, to stand them instead of government patronage. It is therefore ~~to~~ easier to distribute tracts, or obtain an audience in Maulmein, than in Rangoon ~~at~~ Ava, though schools are more easily established. Persecution is shown in every ~~form~~, except official. Neighborly acts are often refused to Christians, and, in some ~~cases~~, were it not for the missionary, the convert could scarcely escape absolute want.

No false religion, ancient or modern, is comparable to this. Its philosophy is, ~~indeed~~, not exceeded in folly by any other; but its doctrines and practical piety bear a ~~striking~~ resemblance to those of holy Scripture. There is scarcely a principle or precept ~~in the~~ Bedagat which is not found in the Bible. Did the people but act up to its principles of peace and love, oppression and injury would be known no more within their ~~bounds~~. Its deeds of merit are in all cases either really beneficial to mankind, or harmless. It has no mythology of obscene and ferocious deities; no sanguinary or impure observances; no self-inflicted tortures; no tyrannising priesthood; no confounding of right and wrong, by making certain iniquities laudable in worship. In its moral code, its descriptions of the purity and peace of the first ages, of the shortening of man's life because of his sins, &c., it seems to have followed genuine traditions. In almost every respect, it seems to be the best religion which man has ever invented.

At the same time, we must regard Boodhism with unmeasured reprobation, if we compare it, not with other ~~false~~ religions, but with truth. Its entire base is false. It is built, not on love to God, nor even love to man, but on personal merit. It is a system of religion without a God. It is literally atheism. Instead of a heavenly Father, forgiving sin, and filial service from a pure heart, as the effect of love, it presents nothing to love, for its Deity is dead; nothing as the ultimate object of action but self; and nothing for man's highest and holiest ambition but annihilation.

History.—The Birmans having got into collision with the British, the finest part of their territory seems likely to be annexed to the British Indian empire.

XVIII. CHINA.



Chinese Wedding.

Altogether the most important event in the modern history of China, was the war with Great Britain, followed as it has been by an internal rebellion which threatens the destruction of the Tartar dynasty, of which the military prestige was destroyed by the result of that war.

Whatever results may grow out of it, the origin of that war, it must be confessed, was in the highest degree disgraceful to the British nation. It originated in the opium trade. Alarmed at the yearly increasing consumption of that pernicious stimulant, produced in British India and smuggled into China, and which in twenty years had risen from the annual amount of \$3,600,000 to \$20,000,000, the Chinese government, after various ineffectual attempts to put a stop to the trade, at length, in March, 1839, resorted to the decisive step of seizing and destroying all the opium then in Canton and its neighborhood, (the property, chiefly, of British merchants, who gave it up to save their lives), to the amount of some 20,000 chests. The forfeiture of smuggled goods is the usual practice of all nations, and yet the British made the refusal of the Chinese to pay an indemnity for the opium destroyed (and in fact, — for they would have been satisfied with nothing less, — to allow the opium trade to go on as before), the occasion for a war. In May, 1841, a British force attacked Canton, and having got possession of all the fortifications, compelled the city to pay a ransom of \$6,000,000. The emperor still refusing to yield to the demands of the British, a strong armament proceeded northerly, and on the 27th of August, 1841, captured the city of Amoy, without the loss of a man, though the fortifications were very extensive, mounting several hundred guns. Not long

after, the island of Chusan and the city of Ningpo fell also into the hands of the British. Further operations were suspended by the setting in of the monsoon; but in July, 1842, a powerful naval armament, having a strong body of troops on board, entered the mouth of the Yangtse Kiang, or Blue River, captured the towns and forts on its banks, and approached the point where that river is crossed by the imperial canal. The Chinese fought with great courage; but their total ignorance of the art of war made them quite incapable of any effectual resistance. A negotiation was accordingly opened and a treaty of peace was soon concluded, near Nankin, by which the Chinese agreed to pay an indemnity to the English of 21,000,000 dollars, to cede to them the island of Hong Kong, near Canton, and to open five ports, Canton, Amoy, Foo-chow-foo, Shanghai, and Ningpo to the foreign trade. This indemnity has been since paid, and this Chinese war, the most iniquitous one in which a Christian nation ever engaged, has been the only war ever carried on by the British which paid its own expenses. The opium-trade, which gave the occasion to the war, though no longer openly protected by the English, is still carried on to as great an extent as ever; but the increase of traffic in other articles exported from the opening of the five ports, has failed, in a great measure, to be realized.

Meanwhile, a rebellion has broken out against the Tartar authorities,—in all probability an indirect result of the English victories, which gradually spreading, has risen to a great height; and, at the present moment, threatens the downfall of the Tartar dynasty. Thus, at last, even China itself, begins to move under the impulse of European activity.

Tea. — It is as the land of TEA, that the name of China is most familiar to western ears.



Cultivation of the Tea Plant.

In the ninth century, certain Arabian doctors mentioned a fragrant and fascinating Chinese beverage, prepared from the plant called *Schah* or *Sah*. After the lapse of some six hundred years—in 1633—Olearius discovered that tea was domesticated as a luxury among the higher ranks of society in Persia. It has since become a common beverage in all civilized and uncivilized countries. All through the wastes of Central Asia, beyond Persia, among the Nomads with shifting tents who flit along the far Asian extremities of Russia, the Kirgish, the Calmucks, the Baschkiri, etc., tea is supreme. But their use of it is according to their condition. With them it is no drink, but a solid nourishment. It has no appearance of delicately rolled leaves, but sticks and stalks of the plant are made into heavy, stone-like cakes, of the color of tan-balls, and of the consistence of iron-bolts. This is moistened and baked with the water of the Steppes, mixed

with the blood of animals and enriched with the fat of beef or mutton, and it is then eaten with spoons, like a thick soup.

Statistics allow an average of $6\frac{1}{2}$ ozs. to each Russian, and to the neighboring Germans, 11 ozs. annually. America consumes 19,000,000 pounds annually, and of this



Gathering Leaves of the Tea Plant.

quantity 15,000,000 are of the green kinds. The British empire, on the contrary, consuming 51,000,000 annually, counts only about 7,000,000 pounds green.

The cultivation and preparation of tea is a tedious process. In eight years, the leaves of the tea-plant are fully charged with their peculiarities. In the ninth year they begin



Drying and Rolling the Green Tea.

to lose them. Yet the plants are stripped sometimes to the eleventh and twelfth years and hence the endless varieties of tea. Each year there are four harvests, of which that of February is the least in quantity and best in quality. The April harvest is a kind of

ripen, a second-cutting of the best. That of June yields mainly large leaves, and that of August is of the baser sort. But each harvest carefully strips the plant, and for each the workmen prepare themselves as for a religious act. For eight days they must eat only a little and carefully, for the leaf is sensitive to an unpleasant breath. A can-



Final Process of Mixing Tea.

ful bath completes the purification; and then, with gloved hands, they proceed to the picking. An industrious workman may collect from ten to fifteen pounds in a day. But on the same day he must strew them upon a heated platter, and on the same evening wrap them in a cloth, and dip them for some moments in hot water. After they have dripped during the night, they are spread the next morning, before the sun is high, in hot iron pans in which they are constantly stirred. They are then laid upon mats, rolled with the open hand, completely cooled with large fans during the process, then skilfully packed in chests, of which the inner surface is carefully lined with scentless leaves; for the contact of wood or metal would impart their odor and flavor to the tea. Only with the commoner sorts are mixed the flowers of the tea rose or of the *Olea fragrans* or the *Camellia sasangua*, to overpower with their fragrance the somewhat rank odor of the coarser leaves. The proper tea-plant blossoms are only very rarely and cautiously scattered among the most select teas.

The best teas go overland to Russia. The difference between those thus obtained and those carried by sea, is just the difference between native Havana cigars and those made elsewhere from the Havana leaf. There are two leading kinds of black tea, the flower and the trade tea. Each of these is subdivided into three families. Of green tea there are but two kinds. But there is one kind yet more exquisite than the black or green, and that is the *yellow*. The tea which approaches nearest it, among all those which are sold (for the yellow tea, like the Schloss Johannisberger, is not to be bought), is that known as the Imperial Pearl.

The essential difference between black and green tea is an unsolved mystery. That miserable tradition of the leaves becoming colored by the hot copper, so that the greenness is a poison, is now tolerated by no Savan. The subtlest chemical analysis has detected no foreign substance in genuine green tea, but only a stronger quality of the tea-character than in black. And here we may remark that recent profound investigations have resolved the essential characteristics of tea, coffee, cocoa, etc., into one quality, which supplies the energy exhausted by vital action, and thus founds the universal use of those beverages, under various forms, in a necessity of human organization.

XXI. JAPAN.

WITHIN a few years, a European traveller, Dr. Siebold, has obtained admission, under the patronage of the Dutch government, into this almost inaccessible country, and has enjoyed, by a long residence at Nangasaki, uncommon opportunities of gaining information respecting the inhabitants.

This country forms a singular anomaly, which has succeeded until the present day, in keeping itself a stranger to the whole world, and isolating itself in such a manner, that Europeans are as utterly ignorant of what is passing there, as if it were situated in one of the planets. But what is more singular is, that during more than one century this same country kept up constant intercourse with Europe, that its sovereigns sent there the first ambassadors, who visited those distant countries in the east, and that it is perhaps the only one of those countries where the Christian religion ever made any considerable progress among the educated classes. The Japanese have never shown the stiffness of the Chinese in repulsing foreign improvements. Even at the present day, their literary men, especially their physicians and naturalists, neglect no occasion to instruct themselves in the European sciences, and study the Dutch language, the only one to which they have access, in order to perfect their knowledge.

With these communicative dispositions, on the part of the nation, how has its government succeeded in keeping it in the most complete isolation? How has this government itself been able to preserve, for more than two centuries, the same inflexibility? However indiscreet may have been the zeal of the missionaries, whatever broils they may have caused, it would seem as if so long a space of time would have weakened, if it did not efface the remembrance of the civil wars which were the fruits of their proselytism. Meantime, the successive efforts of the English, the Russians, and the Americans, to establish communications, have been useless, and two hundred years of prudence and moderation have not released the Hollanders from a single one of those humiliating precautions, which the Japanese thought necessary to take, with regard to them, at the time of the expulsion of other nations.

At the end of the last war, the Dutch government resolved to renew the relations which had been for several years interrupted, and to endeavor to extend them as much as possible. M. Siebold was chosen to accompany the embassy as a naturalist, and a physician; the result of his labors proves that it would have been difficult to have made a better selection.

Colonel Sturber, who was appointed head of the Dutch establishment at Japan, went at first to Batavia. It is generally in the month of June that persons intending to go to Japan quit that city, in order to profit by the south-eastern monsoon, which usually prevails at that period of the year. But the departure of the expedition was delayed a little, by the necessary preparations, and it did not sail until the 28th of June, and on the 4th of July it entered the bay of Banca.

This island derives its principal importance from its tin mines, which were not discovered until 1710, and then, in consequence of a fire which melted some small quantities of it. The Sultan of Palembang at that time began some works, and engaged a great number of Chinese families to come and establish themselves there. At first they took these mines on leases, but afterwards the Sultan decided to regulate them on his own account. His agents, called *tykes*, enjoyed an almost unlimited power, even to the right of life and death over the Chinese, without the latter being able to appeal to the Sultan. The product of these mines is so considerable, that in the year 1823, it did not amount to less than 3,382,317 pounds.

The 7th of July the navigators again set sail, and on the 27th they saw the isle of Formosa, which formerly belonged to Holland, and which was taken from them in 1662, by the Chinese pirate, Coxinga. They continued their voyage without stopping there, and on the 5th they met a Japanese junk, overturned on the side, and saved the crew,

who were in the utmost danger. But the Japanese laws punish so severely all communication with strangers, that they were forced, at the earnest prayer of the captain, to pierce a hole in the hold of this junk, to sink it; for if by chance it had been thrown on any point of the Japanese coast, the captain would never have been able to justify himself for having taken refuge on board a foreign vessel.

The 9th of August, the vessel arrived off Nangasaki; though they had taken care to hoist the Dutch flag, they were not permitted to enter the port, until they had obtained permission. Some Japanese officers came on board, and brought some papers from the head of the Dutch commerce at Dezima; these papers contained general questions respecting the name of the vessel and the captain, as well as the number and quality of the persons who were on board. We hoisted immediately our flag of intelligence, says the narrator, which had been given us at Batavia, with particular instructions respecting the anchorage on the Japan coast. When we had turned the northern point of the isle of Swo-Swima, several officers and Japanese interpreters came on board to receive our papers, and some persons as hostages. They announced to us that an officer of high rank, bearing the title of *bunjost*, and some messengers from the factory, were coming to visit us. Since the celebrated adventure of the British ship of war *Phœton*, in 1808, the government takes the precaution, before the Japanese officers and the Dutch from the factory board the ship, to demand hostages, and conduct them to Dezima, so that since this epoch, the Dutch vessels can no longer enter immediately the port of Nangasaki, but are obliged to remain at anchor during some time in the bay near the isle of Takaboko, (Papenberg) under the eye of the imperial guards.

Toward noon arrived the *gobanjosi*, or envoy of the imperial guard. He was accompanied by several interpreters, who put our author into great embarrassment, for he spoke the Dutch language with difficulty. It is known that the Swedish naturalist, Thunberg, had experienced the same difficulty. M. Siebold, however, succeeded in getting admitted, by persuading them that he belonged to a district of Holland, where a different dialect was spoken.

The wind was so adverse, that, though towed by a number of barks, the author thinks several hundred, the vessel could not enter the port the same evening, and was obliged to cast anchor at twenty-nine fathoms deep. While the Dutch vessels are not in port, they are treated as if they were at war; all the garrisons of the forts in the bay are under arms, the corps de garde, the batteries, and a multitude of small vessels, are covered with flags, banners, arms, and military ensigns, and are illuminated during the night. When the wind is unfavorable, these demonstrations last several days, and occasion the government considerable expense. Thus it is perfectly useless for captains to press the Japanese, when the latter tow them into port, for it is their own interest to conduct them promptly to their destination.

Several months before the arrival of the Dutch vessels, they place on the Cape Nomo, on the mountain near the city, fishermen, called Ko-se-to, and on a height near Nangasaki, sentinels, who watch for the arrival of foreign vessels. As soon as a sail is perceived from the height of the Cape Nomo, the news is carried to Dezima. They also take measures to give, in case of need, signals with rockets, from the tops of the mountains in the interior.

The numerous batteries from the islands and from the shores of the bay are for the most part directed towards the entrance of the basin, and the entrance itself is again defended by strong batteries, raised on the two sides, as well as by a considerable garrison, composed of troops, which bear the name of imperial guards. * This passage is 453 yards in its greatest width, and 150 only in the most narrow place; a chain is always kept ready to bar it in case of necessity. This disposition is little known, being purposely kept secret; the fact is however certain, and the chain is kept in the magazine of the navy, called Ofuna-Kura.

We have extracted this passage almost entire, because it shows the minute precautions which are observed by the Japanese with regard to the Europeans. The navigators were still more surprised at seeing arrive on board, as soon as they had thrown anchor before Dezima, the Chevalier Cock Blomhoff, chief of the Dutch commerce. This dignitary, and the persons of his suite, wear the ancient Dutch costume, which has fallen into disuse for ages, but which could not be abandoned in Japan without exciting the suspicions of the government of that country, who would have thought the least change of costume made them a new nation. A coat of embroidered velvet, a mantle

of black velvet, a hat with plumes, a sword, and a golden-headed cane—nothing was wanting. One might have thought he saw the portraits of Rembrandt, or Van Dyk, descending from their frames; and nothing could be better calculated to show the complete immobility to which this singular country has condemned itself, in the midst of universal movement.

The island of Dezima, where the Dutch factory is established, was artificially constructed with the earth of a hill which was found near the spot, and which was levelled for that purpose; it is protected by a quay of basalt, which protects it against the water, and even at high tide, it is raised six feet above the level of the sea. Its length is about 600 feet, and its width 200. At the south and west it looks out on the sea; on the north and east, it faces the city of Nangasaki, from which it is separated by a canal of little width, and with which it communicates by means of a stone bridge, and a gate, which is always guarded. On this narrow spot the Dutch workmen have erected their magazines, and some other edifices, which form a considerably large street. This establishment at first belonged to the Portuguese; but when they were completely expelled from the empire, they gave it up to the Dutch, who were obliged to destroy the one they had possessed at Firato—it being the intention of the emperor to concentrate at Nangasaki all the commerce of Japan.

It was with great difficulty that they gained sufficient favor to prevent being expelled from this last asylum. There is no sort of vexation and humiliation that they have not been made to suffer by the Japanese authorities. But the desire of preserving a vast monopoly makes them bear everything. It is as humble solicitors, without suite, and without honors, that their ambassadors are admitted at Jeddo; their presents are only received as a tribute, by which they purchase the permission to come to Japan.

This embassy was formerly sent every year; but in 1790, it was decided that it should not take place except once in four years, and that in the interval, the presents should be carried annually to the court by the interpreters. When the embassy makes its visit, the head of the factory is allowed to take with him but two Europeans, a secretary, and a physician. The journey is regulated with the greatest exactness, and in successive days, without their being allowed to change anything. The Japanese kept up such a strict guard over them that the ambassadors were not allowed to abstain from visiting certain curiosities, which have been shown them from time immemorial. The Japanese officer who was employed to conduct them, carried with him the journals of the route taken by his predecessors, and had recourse to it when the smallest difficulty arose. M. Siebold thinks, however, that by a slow and skilful course of management, it would be possible, by means of pecuniary sacrifices, to obtain great facilities. Unfortunately, it is not to be hoped that a company of merchants will consent to make very great advances to obtain scientific and literary results that cannot be carried on their books to the account of profit.

The medical knowledge of our traveller had procured him numerous friends, as well as the means of studying thoroughly, before setting out on the journey, the manners and customs of the country. When the embassy started, he was perfectly prepared to take every advantage of the journey.

Thanks to the custom which obliges the princes to pass alternately six months in the capital, and six in the provinces, and thanks to the numerous places of pilgrimage which are visited by the inhabitants of the most distant provinces of the empire, Japan is a country which is travelled over with great ease. Carriages are not, however, made use of there: the most common means of transportation is the *Nosimono*, a species of palanquin, to which Europeans find it hard to accommodate themselves, because they are obliged to keep their legs crossed in it. There are at regular distances post-houses, where relays of bearers and beasts of burden are found; but as a single prince employs often hundreds of men and animals, the post-house is only the place where travellers procure, under the inspection of the authorities, and with exactness, the means of continuing their journey. There is also a letter post, which leaves the principal cities at a fixed day. Upon important occasions, mercantile houses send especial couriers, those houses particularly which deal in rice and dried fish, commodities on which they speculate in Japan, as they do in Europe on cotton and the stocks. Signal fires, placed at the tops of the highest mountains, give notice to the government if any important event occurs.

Nangasaki is situated in 32 deg. 45 min. north latitude, and 127 deg. 31 min. 30 sec.

east longitude. In 1826, it had 29,127 inhabitants, independent of the soldiery. Persons in the employment of the Ziogoon and the princes, priests and monks, form beside a total of nearly 6,000 souls. The city and its dependencies contain 92 streets, 11,451 houses; 62 temples and Buddhist cloisters, a great religious edifice, and five small chapels for the worship of Camis. It is the residence of a governor, who is relieved by his colleague, who represents the city at Jeddo, every other year; a superintendent of the domains of Ziogoon, a commandant, two mayors, a *chamber of finance*, placed over the foreign commerce, a college of interpreters for the Dutch, the Chinese, and the Corea. It contains two government palaces, those of the princes of Fizen and of Tzikuzen, who furnish alternately the garrison for the port, the offices of Charge d'Affaires of the princes of Satsuma, Tsasima, and some other provinces of Kuisin, a Dutch factory in the artificial island of Dezima, and a Chinese factory, called Tzo-Sin-Jasiki, forming the southern suburb. A prison, a house for the insane, public magazines, an arsenal, a Funa-cura, or open yard, for the protection of ships of war, a botanic garden, several theatres, a great number of tea-houses, and other public places, frequented by crowds of dancers and musicians. A vigorous commerce is kept up, and great industry displayed; there is a porcelain manufactory, breweries of rice-beer, medicines, spices, shops of cotton and silk goods, Chinese magazines, and various trifling articles.

This city, the only link between Japan and foreign countries, is constantly visited by merchants, the learned men and idlers from all points of the empire, and its port is filled with national vessels.

Two recent expeditions to Japan, one American, the other Russian, have induced the emperor to promise to open his ports to European vessels, but it remains to be seen how far this promise will be carried out.

XXII.—AFRICA.

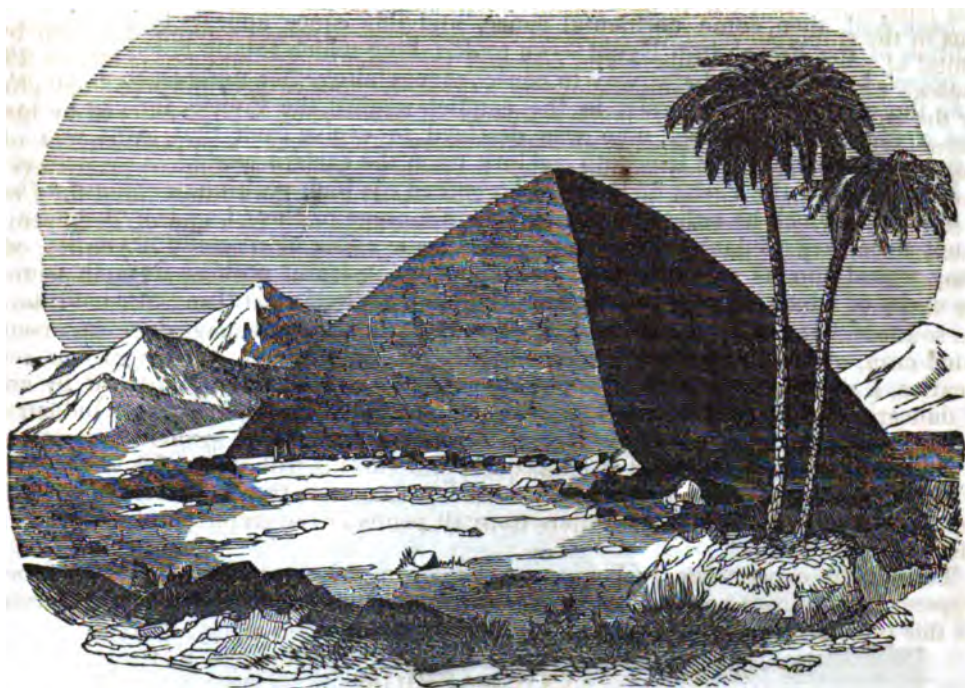


Algeria.—The Arabs of Algiers, after a protracted resistance have submitted quietly to the French arms, and something is now to be expected from, though as yet little has been accomplished by European colonization.

Liberia.—The suppression of the African slave trade, for which Great Britain has made such great efforts, and which now, through the concurrence of Brazil and Spain, seems on the point of being accomplished, is likely to open the West coast of Africa to civilized enterprise, towards which the colony of Liberia may be expected greatly to contribute. Liberia, which since 1847 has been acknowledged by Great Britain and other European states as an independent republic, has a territory of about 24,000 square miles, with a

population, including the natives who acknowledge its authority, of 80,000, of whom at least 50,000 can speak English. Of these, about 10,000 are Americans, or of American descent. The production of palm oil on the west coast of Africa has greatly increased, and efforts are making, not without promise of success, to introduce among them the cultivation of cotton. The "Maryland Colony" at Cape Palmas, though formed after the model of Liberia, is a separate government.

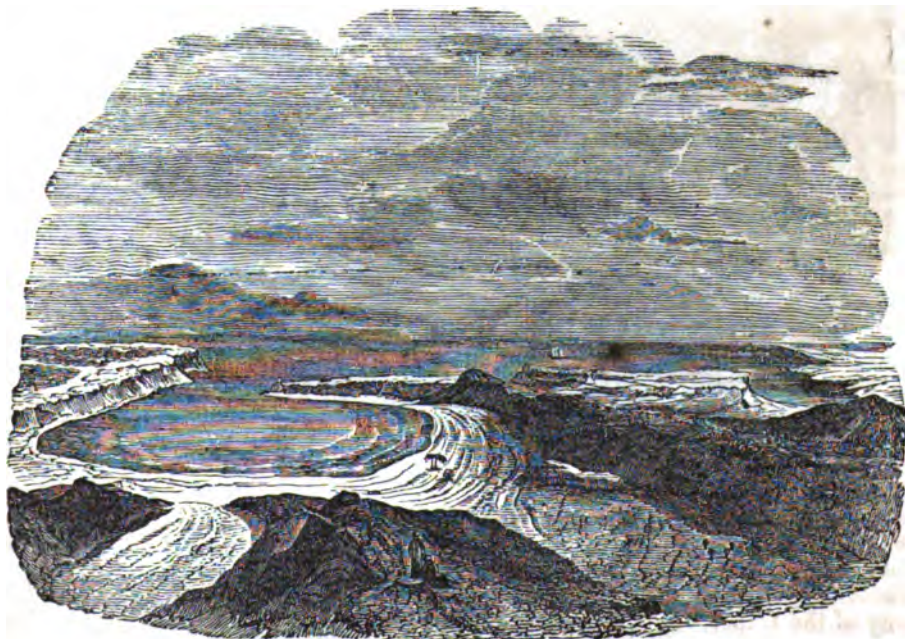
South Africa.—A new war with the Caffres has given a new extent to the English colony of the Cape, which now includes almost all the habitable country in that region.



Brick Pyramid of Fayoum.

XXIII.—EGYPT.

History.—The sudden appearance of the spirit of reform and innovation in the East is one of the most remarkable phenomena of the present century. Had this been the matured fruit of time, it would cause less surprise. But the movement has been sudden, unexpected, and to ordinary observers, inexplicable. It has not proceeded from the mass of the people; it is from one or two individuals that it has received its impulsion. It



Red Sea.

must have had, then, some accidental cause, and this cause appears to have been the expedition of the French into Egypt — an undertaking which totally failed of its immediate object, but which led the way to consequences altogether unforeseen at the time. Among those who came to assist in the conflict against the French, fortune had conducted a Macedonian soldier, who was destined to evolve from that great event the mighty consequences which it was to achieve upon the eastern world. This individual was Mehemet Ali, the Pasha of Egypt, who gained his high position in spite of a thousand obstacles, which he either overthrew by his courage or turned aside by his address. It is not necessary to look upon him as an apostle either of morality or civilization; we may regard him as a man of genius, who, having learnt nothing from the society in the midst of which he was brought up, originated himself a civilizing movement.



Wild Date Palm.

The *Sovereign* is the great landholder of Egypt. The peasantry stand in the relation toward him of a body of hired laborers; though to some among them lands are assigned, of which they remain the tenants as long as they continue to pay the impost. The Pasha furnishes the implements of husbandry, and the cattle necessary for irrigation. When the crops are harvested, they are bought up at the prices fixed by the government. The ordinary cultivators dispose of their products freely; that which is sold in the towns

pays a rateable duty. That which the laborer consumes himself, or sells on the spot, is exempt.

Revenue, Expenditures, Taxes, &c. The annual revenue of the Pasha is about \$12,000,000. The expenditures amount to \$10,000,000. The financial means of the sovereign reside in three sources. First, the constitution of property in Egypt; second, the monopoly of the fruits of the soil; third, the taxes. Property in this country rests upon a basis different from what it is in Europe and America. In the oriental form of society, so different from ours, and in which liberty is unknown, property of any sort has but a precarious existence; the nature of it has never been so clearly defined as in the West. In Egypt, from the time of the Pharaohs, the soil has always belonged to the sovereign. In 1808, when Mehemet Ali wrought the grand territorial revolution by which he became the proprietor of nearly all Egypt, he abolished the titles to certain portions of land let to the *fellahs* or peasants, but held by a kind of feudal proprietors, of whom there were about six thousand, and thus took their property into his own hands; and thus has been enabled to organize a regular system of agriculture and monopoly throughout the country.

Trade and Commerce. The commerce of Egypt is carried on almost exclusively by foreigners; and although the foreign trade had much declined from its ancient prosperity, before the discovery of the passage to India by the Cape of Good Hope, it is still considerable, and, under the reign of the present sovereign, is likely to receive a great and permanent improvement. The Egyptians import from Europe, woollen cloths, calico, muslins, handkerchiefs, silks, velvets, crape shawls, paper, fire-arms, cutlery, watches, clocks, glass and earthen-ware, hard-ware, planks, metal, wines and liquors; from Asia Minor, carpets and figs; from Syria, tobacco, silks, woollen cloaks and soap; from Arabia, coffee, spices, drugs, shawls, silks and muslin; from Abyssinia and Sennaar, and the neighboring countries, slaves, gold, ivory, ostrich feathers, gums and senna; from North Africa, woollen cloth and morocco shoes. The exports to Europe are wheat, maize, rice, beans, cotton, flax, indigo, coffee, spices, gums, senna, ivory and ostrich feathers; to Turkey, Abyssinian and black slaves, rice, coffee, spices and henna; to Syria, slaves and rice; to Arabia, corn; to Sennaar and the neighboring countries, cotton, linen and woollen goods, carpets, beads, soap, fire-arms, &c.

Travelling. In one respect, the energy and severity of Mehemet Ali's government deserve high praise; it has rendered the country under his sway secure, so that travellers, whether Orientals or Franks, may pass in their own dress throughout Egypt with the same degree of safety as in any part of civilized Europe or America. This was equally the case in Syria, and among the Bedouin Arabs of the adjacent deserts, while the Egyptian chief maintained his authority in that country. Travelling in Egypt, however, though perfectly safe, has few of the conveniences and comforts which the tourist has been accustomed to, who goes from England or the United States, where he has only to await the departure of a railroad train, a stage-coach, or a steamboat, and betake himself on board with bag and baggage, without further thought or care. In Egypt, generally speaking, are neither roads, nor public conveyances, nor public houses, and the traveller is thrown wholly upon his own resources. He must hire a boat upon the Nile for himself, unless he can find a companion to share it with him. He must provide his own bed and cooking utensils, and also his provisions for the journey, except such as he can procure at the villages along the Nile; and, above all, he must have a servant, who can act at the same time as cook, purveyor and interpreter. He will soon find himself very much in the power of this important personage, who will usually be able neither to read nor write; and the discomforts and vexations of this relation of dependance will probably continue more and more to press upon him until he has himself learned something of the Arabic language, or is fortunate enough to fall in with a companion to whom the language is familiar. If the traveller has time, he will do well to purchase the chief necessities at Alexandria. Most travellers, on-arriving at Alexandria, suppose they have only to take a boat directly from that city along the canal and the Nile to Cairo; and it may be some days before they learn that at Alfah, where the canal leaves the Nile, they will be compelled to hire another boat, the canal being there shut off from the river by a dam with sluices, but without locks. At this point, everything which passes between Alexandria and Cairo must be re-shipped, to the great inconvenience of the public, and the special annoyance of travellers just arrived in the country. The boats on the canal and river are much the same—long, narrow

and sharp, with a low cabin in the stern, in which one can rarely stand erect, and usually having two low masts, with immense latine sails, their long yards turning round the top of the mast, as on a pivot. The cabins, for the most part, will accommodate only two persons, to sit (cross-legged) and sleep in. If a party consist of more, a larger boat will be necessary, which enhances the expense and commonly adds to the length of the voyage. The indolence and procrastinating habits of the Egyptians and Arabs are well known. Their maxim of business seems to be, "Never do to-day what can be done to-morrow."

The voyage from Cairo to Thebes is about five hundred miles, and varies much as to time, according to the wind, but is accomplished, on the average, in about three weeks. In mid-winter, this voyage is very interesting. The weather is usually pleasant, and the traveller is surrounded by scenes and objects highly striking in themselves, and closely associated with all that is great and venerable in the records of the ancient world. The gleaming waters of the mighty river, rushing onward in ceaseless flow—the pyramids, those mysterious monuments of gray antiquity, stretching in a range along the western shore—the frequent villages along the banks, each in the bosom of its own tall grove of graceful palm-trees—the broad valley, teeming with fertility, and shut in on both sides by ranges of naked, barren mountains, within which the desert is continually striving to enlarge its encroachments;—all these are objects which cannot be regarded without the liveliest emotions. The many boats, with broad latine sails, gliding down—the frequent water-wheels by which the water is raised from the river to irrigate the fields—the peasants at work—the herds of neat cattle and buffaloes—occasional files of camels and asses—large flocks of pigeons, ducks and wild geese—crocodiles sleeping on the sand-bank, and plunging into the water on the approach of the boat;—all these give life and activity to the scene, which increase the interest of the voyage and add to the exhilaration. Yet if the voyager set foot on shore, the romance of his river navigation will quickly be dissipated. He will find the soil becoming an almost impalpable powder beneath his feet, and through this he must wade his way to the next village, which he will find to be only the squalid abode of filth and wretchedness.

The time has gone by when it was necessary for a Frank to assume the oriental dress in any part of Egypt. It may sometimes be convenient to do so, if he is to reside long in the country; but in the case of the mere traveller, it now only excites the ridicule of the natives. A person in a Frank dress, with a long beard, they take for a Jew. For land travelling, dromedaries are mostly used. Camels are employed for carrying baggage.

The Pasha has established two lines of *dromedary posts*, by which letters and despatches are transmitted to and from the government, as occasion may require; and of which the foreign consuls are also permitted to avail themselves. Between Cairo and Alexandria there is a regular daily line. A railroad has even been commenced to connect the Nile with the Red Sea, and thus to facilitate the line of travel through Egypt to India.

In one point of view the innovations of the late ruler of Egypt open a cheering prospect. His whole line of policy has been obviously founded on a conviction and tacit acknowledgment of the superiority of European arts and arms. The discipline of his troops, the organization of his fleet, the establishment of schools and manufactories, have all sprung from this principle, and are an attempt on his part to procure, by a forced process, advantages which can only result from a gradual and general development and improvement. Yet one good effect has resulted from his labors: this same conviction of European superiority has spread from the ruler to the people, and taken root in their minds. In consequence, the strong hold of Mahometan prejudice and contempt towards European Christians is fast breaking down and vanishing away. From the example of Egypt, a similar conviction has been forced upon the ruler of the Turkish empire, and the like effects are rapidly developing themselves in his dominions. Even now, Franks, in their own dress, may wander through the streets of Constantinople and other oriental cities, as freely as in London or Paris, without hindrance or molestation, where, fifteen years ago, they would have been followed with insults and curses, and perhaps stoned. If they travel in the interior, they are everywhere received with courtesy, and usually with kindness. A still more important consequence of this state of things has been, that the Egyptian government, and recently that of Turkey also, have placed their native Christian subjects on an equal footing with the Mahometans, as to civil rights and

justice, and have done away, or at least forbidden, the hereditary and wanton oppressions exercised by the latter.

All these things mark important changes as having already taken place in the oriental character and feelings; and new causes are daily springing into operation which will necessarily render these changes not only permanent, but progressive. The introduction of steam navigation in the Levant, and on the Nile and Black Sea, is bringing the power of European civilisation into closer contact with the East, and cannot but augment its influence a thousand fold. Already the oriental churches are beginning to awake from their slumber, and the whole fabric of Mahometan prejudice and superstition is sapped and tottering to its fall. In all human probability, the coming generation will behold immense changes and revolutions in the oriental world. Then may the Egyptian people be freed from the oppressions under which they now groan:—a bondage more galling than that inflicted by their ancestors upon the Jews of old. Then may Egypt cease to be, what she has long been, “the basest of kingdoms.”

Architecture. Very few large or handsome houses are to be seen in Egypt, except in Cairo and some other large towns. The dwellings of the lower order are of a very mean description. They are mostly of unbaked bricks, cemented with mud. The greater number contain two or more apartments, but few are two stories high. In one of these apartments, in the houses of the peasants in lower Egypt, there is generally an oven occupying the whole width of the room. It resembles a wide bench or seat, and is about breast high. The inhabitants of the house, who seldom have any night covering, during winter, sleep upon the top of the oven. The chambers have small apertures, high in the wall, for the admission of light and air. The roofs are made of palm-branches and leaves, or millet stalks covered with a plaster of mud and chopped straw.

In Cairo, the houses are built of stone and brick, with the fronts of the lower story painted in stripes of red and white. The upper story projects into the street, and as the streets are very narrow, the windows often nearly meet each other, almost entirely excluding the sun from below; and thus producing an agreeable coolness in the summer months. The roofs are flat and covered with plaster. The ground-floor apartments on the street have small wooden, grated windows, so high as to render it impossible for the passengers in the street to see through them, even on horseback. The houses are, in general, two or three stories high; and almost every house that is sufficiently large, encloses an open, unpaved court, which is entered by a passage with one or two turnings, to prevent passengers in the street from seeing into it. The principal apartments look into this court, and here is a well, fountain, &c. In the plan of the interior of almost every house, there is an utter want of regularity. The apartments are generally on different levels, so that a person must ascend or descend two or more steps to pass from one chamber to the next. The principal aim of the architect is to render the house as private as possible, particularly that part inhabited by the women; and not to make any window in such a situation as to overlook the apartments of another house. Another object of the architect, in building a house for a person of wealth or rank, is to make a secret door from which the occupant may make his escape from arrest or assassination. It is also common to make a hiding-place for treasure. The *harem*, or women's apartment, is in the upper story. Many of the rooms are painted with gaudy colors on the walls and ceiling, and sometimes gilt. Colored glass windows are not uncommon.

Antiquities. Within a few years the researches of European travellers and scholars have thrown a flood of light upon the subject of Egyptian antiquities, which renders the subject at present one of the most interesting that can engage the attention of the student of history. Not only has the key to the hitherto inexplicable hieroglyphics been discovered, but the most extraordinary developments have been brought to light by means of the innumerable paintings with which the interior walls of the Egyptian tombs and catacombs are covered. These paintings, executed thousands of years ago, still exist in their original freshness and accuracy; and great multitudes of them have been copied and published in Europe with explanations. They represent all the scenes of Egyptian life, and furnish us with more ample and minute details of the public and private occupations of this most ancient people than we possess of the Greeks and Romans. Pompeii and Herculaneum do not give so extensive or varied a view of the every-day business of the Romans, as the catacombs of Egypt do of that primeval people. In these ancient receptacles of the dead, every act of every department of life seems to have been carefully copied; and the imperfection of the art of design increases rather than diminishes

the interest of their pictures, as they evidently adhere with close fidelity to the truth of nature. A subterranean Egypt appears thus to have come to light: the people have been revived in all their castes, in their civil, military, and religious occupations; in their feasts and their funerals; in their fields and their vineyards; in their amusements and their labors; in their shops, farm-yards, and kitchens; by land and by water; in their boats and their palanquins; in the splendid public procession, and the privacy of the household chamber. There seems to have been a regular design to make these subterranean chambers an exact pictorial copy of the real world above.

In these pictures we observe, first, the agricultural employment of the Egyptians. The process of sowing and of treading in the grain by the feet of beasts, as described by Herodotus and Diodorus, is distinctly represented. Two men are standing with upraised whips to drive a herd of cattle over a field that has just been sown. The harvest follows; the treading out the corn by the unmuzzled ox, according to the law in Deuteronomy; the storing it away in vast magazines; while the intendant or steward sits at his desk taking account of the sacks as they are carried up into the granaries. Then follows the vintage scene, which is curious, as finally deciding the question which arose out of Herodotus, as to the cultivation of the vine in Egypt. The whole process is represented,—the gathering the grapes, the wine-press, the pouring it into vats, and storing it away in large jars. The other harvests are those of flax, the doura, and the papyrus, the gathering of figs and other fruits. In the latter, the peasants are assisted by some monkeys whimsically perched on the trees.

Next follows the care and breeding of domestic animals. We have the whole history of Pharaoh's kine,—they are commonly the fat, and not the lean ones: we see the bulls fighting, the men milking the cows, &c. &c., every step of the process, down to the slaughter-house. From one picture, it appears that the Egyptian monarch, were he now living, might be a competitor at the Brighton cattle-show:—we find the "*king's ox*," marked No. 86! In another painting, we have a regular cattle-show with oxen, goats, sheep, &c., with a farmer surveying and noting down the number of his cattle. In others, we see cattle-doctors administering medicine to the bull, the gazelle, the goat, and even the goose. It is curious enough that the symbol which designates a physician of any class, is that well-known water-fowl whose ordinary cry is "*quack*,"—a fact which must amuse, if it does not edify, the etymologist. In one picture a rude plough is drawn by two cows, before one of which a calf is cutting capers, not without some comic expression. Next we have the chase in all its forms, and the different birds, quadrupeds, and fish often distinguished by their several names. The birds are chiefly water-fowl, and are caught by trap-nets: the land birds are shot with the bow, or knocked down with sticks. The coloring of the birds is most splendid. The quadrupeds hunted, are wolves, jackals, antelopes, foxes, hares, and gazelles. In one hunting-piece, the painter has represented a grand *battue* of bulls, buffalo, deer, wolves, foxes, hares, and porcupines, with three great swans, which defend themselves against the dogs. The other quadrupeds found in the painting, are lions, tigers, monkeys, cats, mice, the elephant, rhinoceros, and giraffe. We have also the whole process of catching and salting fish, delineated with the utmost distinctness.

The exhibitions of the mechanical arts are no less curious and interesting. In weaving, we behold the process from the beating of the flax and winding of the thread, through the loom, to the perfect cloth. Next we are introduced into the carpenter's shop, where we follow with the same regularity the whole course of the work, from cutting down and cleaving the tree, till it is formed into pikes or arrows, hewn into a boat, or wrought into chairs or carriages. The wheelwright is busy in forming his circles and spokes. We are next admitted into the studios of the painters and sculptors of the court of Pharaoh. The painters are chiefly at work in ornamenting mummy cases. The sculptors are hewing out, one a lioness, another a sphynx, and others huge colossal idols, or rude human shapes. In one picture there is an extraordinary sort of procession, in which hundreds of men are dragging along by main strength a vast idol on a kind of sledge. A priest, who looks like a Lilliputian mounted on Gulliver's knee, is addressing the multitude; a second is making an offering; a third pouring forth a libation. One picture, of very high interest, represents brick-making, in which the laborers are supposed to be Jews: their countenances are certainly Asiatic and not Egyptian, and many observers have imagined that they could recognise the keen dark eye, the sharp line of features, and other characteristic marks which distinguish the children of Israel.

The Hebrew history has received some remarkable confirmations from these discoveries. Besides what we have already mentioned, an effigy of one of the Egyptian kings, named Sheshonk, (Shishak,) has been found, coupled with the name of Ioudaha Malek—the king of the Jews.

The goldsmiths and silversmiths next appear, weighing, melting, and refining gold, and gilding small statues: others are making necklaces, apparently of colored glass. Domestic manufactures, too numerous to describe here, are also represented with the most minute accuracy, as shoe-making, tailoring, &c. Females are employed in distilling the essence of flowers, &c. We proceed now to the representations of a mansion of an Egyptian of rank, possibly the royal palace, where we are admitted to the private chambers of the females, ornamented in the most sumptuous manner, opening upon a garden, and supported by slender pillars with lotus capitals, which have a singular Indian appearance. In the garden, four square fish-ponds are marked by rows of water-fowl, and the avenues of trees are trimmed into a rounded form. The vineyard is in the centre, trained in graceful festoons. In the saloons, the furniture resembles in elegance that of an European drawing-room,—stools, chairs, ottomans, and couches. From the saloon, we ascend to the royal bed-chamber, where the Pharaoh reposed on a couch without curtains, but ornamented with what appear to be candelabra on each side. There is a wardrobe, as like a modern one as can be. A tiger's skin is spread out for a carpet. His majesty has arisen, and the toilet begins. There stands the barber,—and a formidable weapon he wields,—performing his office upon the royal head. The valets approach with the robes, the collars, the girdle, and the bow. Her majesty's ladies of the bed-chamber are likewise in waiting with the female paraphernalia.

Not the least interesting of these delineations, are a kitchen scene, and a dinner party. The former begins with the slaughter of the animals. They are skinned and cut up. The geese and other fowl flutter in the hands of the poulterers. The lambs are carried along in baskets like English milk-pails. The ox is bleeding his life away into a pitcher. The cooks hang their pots over the fire, and flourish their flesh-hooks for business. One of them is peeling leeks for sauce. The guests are arrayed at the table in separate groups: one only is seated on a kind of chair; the rest sit with their legs straight under them. Servants are waiting, and wine and other refreshments are brought in. It is evidently not a *temperance* festival, for the *ladies* give such unequivocal proofs of the potency of the liquor, that no one can misunderstand them. Knives and forks do not appear. Next come music and dancing: harps with six, nine, ten, or twelve strings; wind instruments of great diversities of form; ancient Fanny Elsslers, displaying their elegant shapes and grotesque figures, performing a sort of masquerade. Wrestlers are next seen in every possible distortion of form, female tumblers, &c. &c.

There are water-pieces, with boats sailing and rowing. The rowers present a curious spectacle; they stand in rows, sometimes one above the other. In some of the sailing-boats, with their chequered sails, we catch a resemblance to the boats and mat-sails of the South-Sea Islanders. One or two of the more splendid barks realize the description of the barge of Cleopatra.

In the paintings of a more lofty subject, we see Pharaoh on his throne, surrounded by his court, or in company with his wives, some of whom offer him flowers, or wave before him fans or fly-flaps. A favorite is invited to divert his leisure hours with a game similar to chess. The women all stand in his presence; the king alone is seated in an elegant arm-chair. In another painting is a grand procession of Ethiopian and Asiatic chiefs bearing a tribute to the Egyptian monarch, Thotmes III. They are arranged in five lines: the first consists of blacks, or red men, who bring ivory, apes, leopards, skins, and dried fruits. In the second line, are a people of light-red hue, with long black hair descending in ringlets over their shoulders, but without beards. They wear a short dress and sandals richly worked: their presents are vases of elegant form, ornamented with flowers, necklaces, and other costly gifts, which, according to the hieroglyphical inscriptions, they bring as "chosen offerings of the chiefs of the Gentiles of Kufa." In the third line are Ethiopians, who are styled "Gentiles of the South." The leaders are dressed in the Egyptian costume; the others have a girdle of skin, with the hair outwards. They bring gold rings, skins, apes, leopards, ebony, ivory, ostrich-eggs, and plumes, a giraffe, hounds with collars, and a drove of long-horned oxen. The fourth line is composed of men of a white nation, clad in long white garments, with a blue border, tied at the neck and ornamented with a cross and other devices. On the head is either a close

cap or their natural hair, short, and of a red color, and they have a small beard. Some bring long gloves, which, with their close sleeves, indicate, as well as their complexion, that they are the inhabitants of a cold climate. Among other offerings are vases, similar to those of the Kufa, a chariot and horses, a bear, elephant, and ivory. In the fifth line the Egyptians lead the van, and are followed by women of Ethiopia. The offerings being placed in the presence of the monarch, an inventory is taken of them by Egyptian scribes. In another painting, a battle-piece, a town named *Kanana* appears to make its submission; and, a still more curious circumstance, in another, the flying enemy take refuge among the lofty *cedars* that crown the heights of their mountainous country. The name of the people is *Limanon*, but the substitution of *m* for *b* is so very common as to allow us to conjecture that it should be *Libanon*.

There are many other battle-pieces, representing the wars and conquests of different races of kings. Their images are painted on the walls, graven on the bas-reliefs, and represented in the colossal statues; they afford a great *portrait-gallery* of the Pharaohs of Egypt, upon which we look with the most intense interest and wonder. The variety in feature and expression of character in these representations, warrants us in pronouncing them, in the strictest sense of the word, portraits. They present almost every gradation of outline, from the low, receding brow, thick lips, and flattish nose of the Ethiopian, to an Asiatic, if not Grecian symmetry of feature; and in one, we find the high-arched Roman nose. Nor are we without specimens of royal female beauty. This series extends, though broken by many intervals, from the Ethiopian wife of the first Amenoph, the head of the 18th dynasty, whose features are the nearest to the negro of the whole number, down to the identical Cleopatra of classic story. The portrait of this famous queen has a voluptuous fulness, but without extraordinary beauty, corresponding precisely to the description of Plutarch.

The numerous battle-pieces, the representations of combats by sea and land, of sieges, triumphs, processions of captives, the cruel mutilations on which the number of the vanquished is reckoned by the heads cut off, and by other more barbarous mutilations, common in eastern warfare—the single figures of the heroes in the great conflicts, particularly a remarkable one of the conqueror with his lion, which perpetually occurs—all these most clearly prove that the ancient Egyptians were a warlike nation, and were distinguished among their contemporaries by great military prowess.

This singular propensity of the Egyptians, to decorate the tombs of the dead with the lavish splendor which other nations have reserved for the palaces and temples of the living, is one of the most remarkable and inexplicable of all the phenomena in the history of man. Many of these highly-adorned sepulchres appear to be accessible only through long, narrow, and intricate passages; the approach to others seems to have been closed with the strictest care, and concealed with a kind of reverential sanctity. Each city, or at least each district, had its catacombs, or "city of the dead." In the silent and rock-hewn counterpart of Memphis and Thebes were treasured up all the scenes in which the living king and his subject had been engaged. The royal tombs were a kind of mimic palaces, with halls and corridors, and galleries, in regular succession, till they reached the chamber of state in which the sarcophagus reposed. The sepulchral chambers of the Theban necropolis are by far the most spacious and magnificent of all; but those of Beni Hassan appear to furnish the most curious illustrations of common life. It is here that the trades, manufactures and agricultural occupations are depicted in regular compartments. The principle of devoting so much cost and toil to the everlasting palaces of departed monarchs, which probably gave rise to the construction of the pyramids, once admitted, the decorations of the walls with religious processions, or with painted legends of the glory of the deceased, may seem less inexplicable. But there is something unaccountable in this delineation of every occupation of life, in the habitations of the dead. If the paintings were merely intended to designate the rank, the profession, the occupation of the deceased—the warlike scenes in the tomb of military caste, scenes of rural labor in that of the husbandman—their purport would be evident. But some of the tombs are decorated with every kind of device; so that the paintings are no way emblematical of the peculiar character or history of the deceased. The whole subject is a profound and impenetrable mystery; yet these things could never have been without a motive and specific design; and under all this mystery, we are persuaded, must lie some profound meaning, which neither modern research nor conjecture has been able to approach.

Literature and Science. The metropolis of Egypt maintains the reputation, by which it has been distinguished for many centuries, of being the best school of Arabic literature and of Mahometan theology and jurisprudence. Polite learning has much declined among the Arabs generally, but least in Cairo. Consequently, the fame of the professors of this city still remains unrivalled; and its great mosque, the Azhar, continues to attract crowds of students from every quarter of the Moslem world. The Arabic spoken by the higher and middle classes in Cairo, is generally inferior, in point of grammatical correctness and pronunciation, to the dialect of the Bedouins of Arabia, and of the inhabitants of the towns in their immediate vicinity. But it is far superior to that of Syria, and still more to the dialects of the Western Arabs. There is not so great a difference among the dialects of Arabia spoken in different countries, as is commonly imagined. They resemble each other more than the dialects of some of the different counties in England. The literature of the Arabs is very comprehensive. The greater portion of the books relate to religion and jurisprudence; next are those on grammar, rhetoric, and philology; next, are works of history and geography; next, poetry and romance. Works on chemistry, medicine, the mathematics, algebra, &c., are comparatively few.

There are in Cairo, many large libraries, most of which are attached to mosques, and consist, for the most part, of works on theology, jurisprudence and philology. Several rich merchants and others have also good libraries; but the book-stores in Cairo are only eight or ten, and they are but ill-stocked. Whenever a valuable book comes into the possession of one of these persons, he goes round with it to his regular customers, and is almost sure of finding a purchaser. The leaves of books are seldom sewed together, but they are usually enclosed in a cover bound with leather. Five sheets or double leaves are commonly placed together, one within another. The leaves are thus arranged in small parcels without being sewed, in order that one book may be of use to a number of persons at the same time.

The young men who design to devote themselves to religious employments, or to any of the learned professions, mostly pursue a course of study in the Great Mosque, having previously learned nothing more than to read, and perhaps to write and recite the Koran. Schools are very numerous, not only in the metropolis, but in every large town, and there is at least one in every considerable village. Almost every mosque in the metropolis has a school, in which children are instructed at a very trifling expense, the schoolmaster receiving from the parent of each pupil about two cents and a half every Thursday. The lessons are generally written on tablets of wood painted white. All who are learning to read, recite their lessons aloud, rocking their heads and bodies incessantly backward and forward, which practice is observed by almost all persons in reading the Koran, it being thought to assist memory. The noise may be imagined. It is seldom that the master of a school teaches writing; few boys learn it, unless destined for some employment in which it is indispensable. The schoolmasters are mostly persons of small learning.

The regular subjects of study at the Great Mosque, are grammar, rhetoric, versification, logic, theology, jurisprudence, and arithmetic. Lectures are also given on algebra. None of the students pay for the instruction they receive, being mostly of the poorer classes. The greater part of those who do not belong to the city, receive a daily allowance of food, provided from funds chiefly arising from the rent of houses bequeathed for that purpose. The expense of repairs for the mosque, and the salaries of the instructors are paid by the government. The number of students is at present about fifteen hundred. There is also a chapel, in which three hundred poor blind men are maintained, most of whom are students. These men are notorious for their fanaticism, and sometimes behave most outrageously. The literary attainments of those who do not belong to the learned classes, are of an inferior kind. Many of the wealthy trades-people are well instructed in reading and writing, but few of them devote much time to the pursuit of literature. Many tradesmen can neither read nor write, and are obliged to have recourse to friends to write their accounts and letters; but the same persons generally cast accounts and make intricate calculations mentally, with surprising rapidity and correctness. The medical and surgical practitioners are mostly barbers, miserably ignorant of the sciences which they profess, and unskilful in their practice, partly in consequence of being prohibited by their religion from dissecting human bodies. But numbers of young men, natives of Egypt, are now receiving European instruction in

medicine, anatomy, surgery, and other sciences, for the service of government. Alchemy is more studied in this country than pure chemistry, and astrology more than astronomy. The astrolabe and quadrant are almost the only astronomical instruments used in Egypt. Telescopes are rarely seen, and the magnetic needle seldom employed, except to discover the situation of Mecca. The Pasha has a printing-office at Boolak, a suburb of Cairo, at which more than a hundred different works have been printed, most of them for the use of the military, naval and civil servants of the government. A pocket almanac is published annually.

Army and Navy. Mehemet Ali, after exterminating the Mamelukes, saw that to maintain his power, an army was necessary,—not an army after the Turkish fashion, a turbulent militia, dangerous even to the sovereign that commands it and the people who pay it;—but an army subjected to the rigor of strict discipline, that would submit to the rules of military science and insure success in the field. For this purpose he has organized an army on the European system, and under the tuition of European officers. His military forces amount to 130,402 regular troops and 47,678 irregulars. Besides these there are 47,800 national guards. French officers are almost the only ones employed in the formation of the corps of infantry and cavalry.

The Egyptian fleet was entirely destroyed at the battle of Navarino; it was, however, but small. Since then a new naval force has been organized under the superintendence of Europeans. The first ship of one hundred guns, was launched at Alexandria in 1831. At present the navy consists of 11 ships of the line, 7 frigates, 5 corvettes, 4 schooners and 5 brigs, carrying an effective force of 16,000 men.

It is a remarkable fact in the history of this country, that the army and the numerous appendages connected with it, have been the means of introducing into Egypt the great social reforms and political improvements which are now in progress there. Following close upon the organization of the army and fleet, have come the establishments for public instruction, schools, hospitals and other European and civilizing institutions.

Population and Inhabitants. The present population of Egypt is about 3,000,000, of whom 2,600,000 are Egyptian Mahometans, 150,000 Copts, 12,000 Turks, 70,000 Bedouin Arabs, 25,000 Ethiopians and other blacks, 5,000 Abyssinians, 5,000 Circassian and Georgian slaves, 7,000 Jews, 7,000 Syrians and Arminians, 2,000 Italians, 800 French, and 100 English.

The Copts are descendants of the ancient Egyptians, but not an unmixed race, their ancestors, in the early ages of Christianity, having intermarried with Greeks, Nubians, and Abyssinians. They differ but little from their Moslem countrymen. In religion, they are, with the exception of a small number who profess the Romish or Greek faith, Christians of the ancient sect called Jacobites, Eutychians, Monophysites and Monothelites. The Copts have numerous schools, but for boys only. Very few females among them can read, and those are instructed at home. The boys are taught the Psalms of David, the Gospels, the Apostolical Epistles in Arabic, and then the Gospels and Epistles in Coptic. The Scriptures are read in their churches also in that language, but they are explained from books in Arabic. The Copts generally pray seven times a day. As to their general standing and character, they are not now despised and degraded by the government as they were a few years ago. Some of them have even been raised to the rank of Beys. Before the accession of Mehemet Ali, neither the Copts, nor the other eastern Christians, nor Jews were allowed to ride horses in Egypt; but this restriction is now abolished. The Copts are not liable to be taken for military service,—an immunity which excites the envy of their Moslem neighbors. They are not allowed by their church to intermarry with other sects. They are great bigots, and bitterly hate all other Christians. They are of a sullen temper, avaricious and deceitful. Most of the Copts in Cairo are accountants or tradesmen. Those in the villages are employed in agriculture. The male adults pay a tribute to the government besides the universal income tax.

The Jews in Egypt lead a very quiet life. They have eight synagogues in Cairo, and enjoy not only religious toleration, but a greater freedom from oppression than their race experience in any other part of the Turkish empire. They pay tribute like the Copts, and are exempted from military service. Many of them are bankers, goldsmiths, silversmiths and merchants, but the lower orders are poor and wretched. The whole class, indeed, make a very shabby appearance, for the more opulent individuals carefully conceal their wealth.

INDEX TO VOL. I.

Abbreviations: — b. bay, — c. cape, — f. falls, — g. gulf, — i. island, — ids. islands, — l. lake, — m. mountain, — mts. mountains, — o. ocean, — s. sea, — r. river, — str. strait, — sd. sound.

*All pages with a * prefixed, refer to the Supplement.*

Arden r.	413	Alaunian m.	367	Andorra	187	Arden r.	413
Ardeens	136, 137	Alauta r.	295	Andros i.	253	Ardennes mts.	*66
Argos	362	Alb m.	319	Angermanna r.	353	Argos	257
Argostoli	270	Albania	*206	Angiers	167	Argostoli	249
Arles	520	Albanian Drino r.	268	Anglesey i.	88	Arles	167
Armagh	474	Albano l.	240	Anglo-Norman i.	82, 88	Armagh	151
Arnauts	252, 268	Alcobaca	208	Angola	210, 508, 510	Arnauts	*202
Arno r.	248	Alderney i.	88, *117	Angora	408	Arno r.	238
Arolsen	416	Aleppo	415	Angornou	500	Arolsen	326
Arracan	*125	Alessandria	232	Angra	60	Arracan	457, *245
Arran i.	233	Aleutian i.	396	Anhalt	*180	Arran i.	132
Arras	519	Alexandretta	416	Anhalt-Bernburg	327	Arras	168
Arre l.	301	Alexandria	526	Anhalt-Cothen	327	Arre l.	342
Arsinoë	233, 301	Algiers	170, 489	Anhalt-Dessau	326	Arsinoë	526
Arta	535	Alicant	191	Animals	43, 46	Arta	270
Arta g.	509	Allahabad	442	" Classification of		Arta g.	253
Artesian Wells	159	Alpheus r.	252	*51		Artesian Wells	*29
Arve r.	521	Alps m. 60, 158, 211, 282, 311, *65		Ankoher	521	Arve r.	231
Ascension i.	270	Alsen i.	342	Annam	457	Ascension i.	536
Ashantee	59, 211, 268, *64	Altai m.	379, 393	Anspach	321	Ashantee	508, 509
Ashton	342	Alten r.	358	Antakieh	416	Ashton	100
Asia	268	Altenburg	325	Antarctic o.	23	Asia	379, *203
" Ottoman	*66	Altona	343	Antarctic pole	21	" Ottoman	401
" Minor	*221	Amalfi	248	Antelope	388, 482	" Minor	383
Asoph s.	434	Amaxiki	249	Anti-Libanus m.	412	Asoph s.	59
Asphaltites l.	473, 507, 513, 519, *257	Ameland i.	329	Antipatros i.	253	Asphaltites l.	413
Aspropotamos r.	535	Amhara	520, 521	Antwerp	339	Aspropotamos r.	252, 268
Ass	247	Amherst	*239	Anziko	508	Ass	389
Assam	442	Amherst Town	457	Apennines m. 60, 211, 244, *65		Assam	457
Assouan	294	Amida	405	Aquileia	301	Assouan	526
Asterabad	474	Amiens	168	Arabia	383, 424	Asterabad	429
Asti	443	Amman	420	Arabian s.	383	Asti	232
Astrachan	167	Amou r.	899	Aral r.	399	Astrachan	372
Astronomical Discov-	309	Amour r.	458, 459	Ararat m.	401	Astronomical Discov-	*7
eries	159	Amretsir	444	Araxes r.	394	eries	
Astronomy	519	Amsterdam	331	Arcadia	257, *202	Astronomy	17
Athens	426, *217	Anaconda	390	Archangel	371	Athens	254
Athos m.	371	Anadyr r.	394	Archipelago	22, 59	Athos m.	267, 270
Atlantic o.	408	Anakta i.	396	Arctic Pole	21	Atlantic o.	24
Atlas m.	458	Anatolico	256	Arctic o.	24	Atlas m.	488
Augelah	458	Ancona	243	Ardebil	430	Augelah	488
Augsburg	353	Andaman i.	383, 457			Augsburg	320

Auk	73	Basle	285	Birkenfield	324	Brahmanism	1
Aurora Borealis	36	Bassa Cove	509	Birmah	*238	Brahmapootra r.	4
Aurangabad	444	Bassenthwaite l.		Birman Empire	453	Brailow	27
Austerlitz	303	Bassora	404	Birmingham	100	Brazza	2
Austria	290, 299,	Bastia	159	Birnie	500	Breda	34
*181		Bath	103	Biscay b.	59, 160	Bremen	323, *14
Austrian Italy	233	Bathurst	508	Biscay m.	188	Brenner m.	3
Ava	453, *242	Bautzen	322	Bisnagar	443	Brescia	2
Avalanhes	*30	Bavaria	320, *180	Black Drino r.	268	Breslau	3
Avernus l.	248	Bayonne	167	Black Forest m.	318,	Brest	15
Avignon	167	Bear	65, 66, 386	319, *66		Breede r.	51
Avon r.	*120	Beaver	68	Black m.	513	Brientz l.	2
Avoset	73	Beer	405	Black Sea	59, 268,	Brighton	10
Axius r.	268	Begharmi.	501	*64		Bristol	18
Axum	521	Behring's i.	396	Blanc c.	474	Bristol Channel	8
Azof s.	59, 368	Beierland i.	329	Blenheim	321	*120	
Azores i.	60, 210, *23	Beirout	416	Blida	489	British Empire	*4
		Bejapoor	444	Bloodhound	480	British India	44
Babelmandel str.	383	Belfast	151	Blue r.	520	Broad r.	51
Baboon	477	Belgium	337, *194	Boa	390	Brody	30
Babylon	406	Belgrade	270	Boar, Wild	64	Brocken m.	32
Badajos	192	Belleisle i.	160	Bobzano	302	Broussa	41
Baden	318, *180	Beloochistan	436	Bochnia	304	Brown m.	18
Badger	65	Belur Tag m.	398	Boehmerswald m.	*66	Bruges	39
Bagdad	404	Benares	442, *203	Bohemia	302	Brunn	30
Bagshot Heath	*119	Bender	371	Boiador c.	474	Brunswick	325, *18
Bahr el Abiad r.	503,	Benevento	243	Bois-le-Duc	332	Brunswick, Duchy o	
522, 525		Bengal	*237	Boli	408	325	
Bahr el Azrek r.	520,	Bengal s.	383	Bologna	243	Brussels	39
522, 525		Benguela	508, 511	Bolton	100	Buchara	39
Baizé	248	Benin	508, 509	Bombay	443, *236	Bucharia	39
Baikal l.	394	Benin r.	508	Bona	489	Bucharest	27
Baireuth	321	Ben Lomond m.	132	Bondoo	508	Buckeburg	32
Bakhtegan l.	428	Ben Nevis m.	131	Bonn	309	Buda	29
Balaton r.	293	Berah	*238	Bonny	509	Buddhism	5
Balbec	416	Berar m.	438	Boodhism	*248	Budweis	20
Bale	285	Berbera	520	Bootan	445	Buffalo	338, 48
Balcaric i.	188	Berg r.	514	Booteas	445	Bug r.	30
Balfrouch	429	Bergamo	234	Bore	31	Bugeiah	44
Balkan m.	60, 267, *66	Bergen	307, 351	Borgoo	502	Bulgaria	27
Balkh	399	Berlin	308	Borneo	*24	Bull, Wild	6
Ballinasloe	152	Bermudas ids.	*23	Bornholm i.	342	Buntakoo	50
Baltic s.	59, 355, *64	Berne	285, 287	Bornou	500	Bunting	7
Bambarra	503, 508	Bernburg	327	Bosna Serai	270	Burgos	19
Bambouk	508	Berwick	105	Bosphorus	268	Burrampooter r.	43
Bamiam	436	Berytus	416	Bothnia g.	59	Bursa	40
Bacca	*255	Besancon	168	Botzen	302	Busheer	43
Bankok	456	Bætia	*201	Boulogne	166, 168	Bustard	71, 45
Bannockburn	136	Bethany	418	Bourbon i.	170, 536	Buyukdere	27
Bar	31	Bethel	418	*24		Buzzard	69
Barbary States	488	Bethlehem	418	Bourdeaux	167		
Barcelona	191	Bethsaida	*217	Bourget	231	Cabes	420
Bari	248	Beveland i.	329	Bourlos l.	525	Cabul	434
Barletta	248	Bhering's str.	383	Boussa	503	Cacheu	508
Barmen	309	Biafra	508	Bowfell m.	*118	Cacongo	508
Baroda	444	Biel l.	283	Boyne r.	148	Cadiz	191
Barren Tracts	*67	Bilboa	192	Bradford	101	Caen	168
Barrow r.	148	Biledulgerid	490	Braga	207	Caernarvon	105, *120

Affrica	516	Carpathian mta.	60,	Chemnitz	222	Corinth	258
Agliari	232	267, 290, 298, 308,		Cherbourg	168	Cork	151
Aior	508	811, *66		Cherson	371	Cormorant	75
Airo	526	Carrara	238	Chester	105	Corn Crake	71
Airwan	489	Carron	186, 187	Chevoit Hills	87,	Coron	257
Aithness m	131	Carthage	489	*117, *138		Coron g.	253
Alabar	508	Carthagea,	191	Chilmnar	430	Corrientes c.	474
Alabar r.	508	Cashan	429, 457	China	460, *251	Corsica i.	159, 211
Alais	168	Cashel	151	Chinese Tartary	458	Corunna	192
Alamata	257	Cashgar	458	Christiania	351	Cossier	527
Alavrita	258	Cashmere	445	Christianity	51	Cottian Alps m.	230
Albargos	508	Cashna	501	Christiansand	351	Couama r.	474
Alcutta	442	Caspian s.	388, *26,	Chuchres and Abbys		Coumassi	509
Alldwell	509	*64		*125		Courtray	339
Alledonia Canal	134	Cassel	826	Civet	386	Coventry	104
Almar	355	Cassiterides i.	88	Clivita Vecchia	243	Cowes	102
Altagirone	248	Casso	508	Clagenfurth	301	Cracow	363
Albray	168	Castalia	256	Clear c.	60	Crajoa	270
Albodia r.	453	Castle Rushen	*17	Clermont	168	Crane, Crowned,	486
Albridge	103	Castleton	*117	Clifton	101	Crapack m.	293, 303
Almel	388	Castles	*125	Climate	32, *30	Creeper	71
Almelopard	483	Castri	256	Clouds	35	Crefield	309
Almoos r.	515	Casween	429	Clyde r.	132, *139	Cremona	234
Alna	418	Cat Wild	65	Coanza r.	508	Croatia	294
Alnals	91, 134, 150,	Catania	248	Coal Measures	*44	Crocodile	484
162, 190, 212, 234,		Cataracts	81	" Fields & Mines		Cronstadt	370
285, 294, 308, 338,		Catmandoo	445	*122		Crossbill	72
343, 354, 372, 526,		Cattaro	295, 296	Cobbe	503	Crow	69
461.		Cattegat	58, 358	Coblentz	309	Ctesiphon	406
Alnary Ids.	205, 537,	Caucasian m.	379,	Coburg	325	Cuckoo	70
*23		393		Cochin	*238	Cumberland hills	87
Alndahar	484	Caucasian Race	47	Cœthen	327	Cumbre Mulahacen	
Alndia i.	60	Cava	248	Coimbra	207	m.	188
Alnea	60	Caverns	39	Colocythia g.	253	Cuneo	232
Alntabrian m.	188	Cavery r.	438	Cologne	309	Cuxhaven	328
Alntal m.	158	Celano l.	245	Columbo	441	Cyprus i.	383, 403
Alnterbury	103	Celebes i.	*24	Comets	18, *10		
Alnton	462	Cephalonia i.	249	Comino i.	211, 250,	Dacca	442
Alntes	23	Cephissus r.	252	Como l.	233, *68	Dagomba	508
Alnt Coast Castle	509	Cerigo i.	250	Comoro i.	535	Dahl r.	353
" Colony	513	Cettina	270	Congo	508, 510	Dahomey	508, 510
" of Good Hope	474	Cettina r.	295	Congo r.	474	Dalmatia	295
" Mount	474	Centa	205	Coni	232	Damascus	416
" Town	516	Cevennes m.	60, 158,	Constance l.	283,	Damietta	526
" Verde Ids.	210,	*147		*68		Damietta r.	525
506, 536, *23		Ceylon i.	383, 441,	Constantina	489	Dantzic	309
Alpernaum	418	*24		Constantinople	269	Dantzic g.	307
Alpri i.	246	Chamak	895	Constantinople str.		Danube r.	61, 267,
Alrdigan	105, *120	Chamberry	232	268		291, 293, 311, 320,	
Alrdlaise Mine	89	Chameleon	484	Constellations	18	*71, *174	
Alrdibbean Sea	24	Chamois	64	Continents	22, *23,	Dardanelles str.	59,
Alrdisle	105	Chamoulari m.	437	Copenhagen	343	268	
Alrdshad	303	Chandernagore	170	Copper i.	396	Darfour	503
Alrdscrona	355	Charente r.	159	Cordova	191	Darmstadt	326
Alrdruhe	318	Charkov	872	Corea	383	Dartmoor	*118
Alrdmel	412, 416	Chelicut	521	Corea g.	383	Day, the apparent	
Alrdm Alpa	290	Chelsea	99	Corea str.	383	*18	
		Cheltenham	103	Corfu i.	211, 249,	Dead s.	413, *26

Dean Forest	*123	Dumbarton	136	Elphanta	448	Fens	*116
Debretzin	294	Duero r. ^	188, 206,	Elsinore	843	Fenern i.	
Deccan	383	*71		Elster r.	807	Fernando Po l.	508,
Deegoa	501	Dumfries	136	Elvas	207	586	
Dee r.	88	Duna r.	368, *69	Emden	324	Ferrara	243
Deer	64	Dundalk	152	Emineh Dag m.	267	Fetichism	50
Degree	21	Dundee	136	Ems r.	323	Fez	490
Delft	332	Dun Diver	75	Enara l.	358	Fezzan	488
Delgado c.	474	Dunfermline	136	Engallo	482	Fichtelgebirge m.	311
Delhi	442	Dunkirk	168	England	87, *117	320	
Dolphi	256	Durance r.	159	English Channel	*64	Figueras	191
Delta	31	Durham	105	Equator	20, 21	Figure of the Earth,	
Demavend m.	428	Dusseldorf	309	Equatorial Zone	*31	*21	
Dembea l.	520	Dwina r.	368	Equinox	20	Finches	72
Denmark	342, *192	Eagle	68	Ergoyo	508	Fingal's Cave	30
Deptford	99	Earth	21	Erivan	395	Finisterre c.	60
Derby	103	" Figure of	*21	Erfurt	309	Finland	361
Derg l.	*143	" Structure of	*38	Ermine	65	Finland g.	368
Derne	488	" Surface and mor-		Erme l.	*143	Finnic m.	367
Derr	522	al effects of its con-		Erzerum	406	Finsteraarhorn m.	283
Derriah	426	figuration	*26	Erzebirge m.	302,	Firth of Dornock	153
Derwentwater l.	88,	Earthquakes	27	311, 321		" Forth	133
*119		Eastern Ghauts m.	438	Escaut r.	159	" Lymfiord	342
Dessau	327	438		Esiongeber	426	" Murray	133
Detmold	327	Eastern s.	383	Esne	526, 527	" Solway	133
Dew Point	*35	Ebro r.	188, *71	Esrom l.	342	" Tay	133
Dezima	*256	Ebsamboul	522	Etna m.	245	Fixed Stars	18, *11
Dhawalagiri m.	437	Ecbatana	429	Eton	99	Flensburg	344
Diarbekir	405	Ecija	191	Eubœa i.	252, *202	Florence	239
Dijon	168	Ecliptic	19	Euphrates r.	383, 401	Flushing	332
Dnieper r.	368, *63	Eddyston i.	*120	Europe	58 *63	Fœmund l.	350
Dniester r.	61, 291,	Edessa	405	Europe five Great		Foggia	248
303, 368, *69		Edina	509	Powers of	*84	Fontainebleau	166
Dodo	486	Edinburgh	134	European Turkey	267,	Formosa i.	383, 461,
Dog	67	Efat	520	Europe in Russia	*156	*24	
Don r.	61, 368, *69	Egina g.	253	Eurotrs r.	252	Eormosa r.	508
Donegal b.	149	Egina i.	253	Eutin	324	Forth r.	132, *139
Dongola	522	Egripo	252	Euxine s.	268	Forth and Clyde c.	
Dora r.	231	Egypt	524, *258	Evora	208	134	
Dordrecht	332	Eider River	*69	Exeter	102, *118	Fossils	*42, *49
Doria r.	233	Eisenach	324	Exmoor	*118	Fouladoo	508
Dormouse	67	Ekaterinburg	372	Eyder r.	342	Four Forest Cantons	
Dorpat	371	Elba i.	238	Eyeo	503	283	
Dort	332	Elbe r.	61, 291, 302,	Eyoes	508	Fouta Jallo	508
Douglas	*117	307, 311, 321, 323,		Fahlun	855	Fouta Toro	508
Dover	101	*69		Falashas	521	Fox	66
Dovrefield m.	350	Elberfeld	309	Falcon	69	Fox i.	396
Downs	102, *118, 120	Elbing	309	Falkirk	136	Foyle r.	148
Drammen	351	Elburz m.	428	Falkland ids.	*23	France	158, *147
Drave r.	291, 293,	Elden's Hole	*119	Falls	81	Franks	*165
301, *174		Elephant	387, 440,	Falster i.	342	Frankfort	308, 328
Dresden	322	481		Faroe i.	344	*180	
Drogheda	152	Elephantine	527	Farther India	453	Free Cities	328
Dromedary	388	Elephant's r.	514	Fata Morgana	36	Freetown	508
Drontheim	351	Elk	64	Fayal i.	60	Freyberg	319, 322
Dublin	150	Ellor	444	Fellatah	501	Friburg	286
Duchy of Brunswick	325	El Mina	509	Fennec.	478	Friendly ids.	*24
						Frieslanders	*163

Fromentera i.	188	Gironde r.	159	Guardafui c.	474	Hemispheres	56
Fuerte Ventura	587	Glaciers	29, *29	Gudensal r.	342	Henbarrier	69
Fulda	826	Glasgow	135	Guernsey ids.	82, 88,	Herat	436
Funchal	587	Globes	22, 53	*117		Herculaneum	228, 229
Funen i.	342	Glommen r.	350	Guinea	508	Heron	73
Funerals	146	Gloucester	103	" Hens	485	Hermannstadt	295
Furth	821	Gluckstadt	343	Guinea ids.	536	Hertogenbosch	332
Fyzabad	400	Glutton	65	Gulfs	24	Hesse	*180
		Gnu	483	Gull	74	Hesse Cassel	325
Gaba	508	Goa	445	Gundava.	486	Hesse Darmstadt	325,
Gadames	489	Godaveri r.	438	Gurck r.	301	326	
Gagigliano r.	245	Godwit	73	Gurran Tual m.	148	Hesse Homberg	325,
Gailenreuth Cavern		Golconda	444	Guzel Hissa	408	326	
812		Gold Coast	509	Guzerat	*238	Hielmar l.	353
Galicia	303	Goletta	489	Gwalior	444	Hildesheim	323
Gallipoli	270	Gondar	521	Gypsies	106	Hildburghausen	325
Galway	152	Goodwin Sands	102			Himalaya mts.	379,
Galway b.	149	Goole	101	Haarlem l.	*68	437	
Gambier r.	508	Goosander	74	Haarlem s.	330	Hindooen i.	350
Ganges r.	383, 438	Goree	508	Hague	331	Hindoo Koo m.	434
Garda l.	238	Goree i.	170	Hainan i.	383, 461	Hindostan	437
Garganney	75	Gorgona i.	238	Halberstadt	309	Hinlopen	332
Gariép r.	515	Goshawk	69	Halifax	101	Hippopotamus	481,
Garonne r.	159, *70	Gotha	325	Hall	320	497	
Garrows	457	Gotha r.	353	Halle	309	Hissar	458
Gauritz r.	515	Gothland	353	Hamadan	429	Hlassa	452
Gazna	484	Gottenburg	355	Hamah	416	Hoang Ho r.	383,
Cebal	416	Gottingen	323	Hamburg	328, *180	452, 460	
Gefle	855	Government	48 *60	Hami	458	Hocheim	326
Genesareth l.	413	Gozzo i.	211, 249,	Hammerfest	851	Hofwyl	285
Gehol	459	250, 251		Hampton	99, *135	Hohenzollern	327,
Genet	65	Graetz	300	Hampton Court	*135	*180	
Geneva	285	Graian Alps	230	Hamster	67	Hohenzollern Hechin-	
Geneva l.	231, 283	Grain Coast	508	Hanau	326	gen	328
Genoa	232	Grampian mts.	131,	Hangchou	462	Hohenzollern Sigma-	
Genoa g.	211	*138		Hanover	323, *180	ringen	328
Geology	*88	Gran r.	293	Hare	67	Holderness	*118
Georgetown	457	Granada	191	Harlem	332	Holland	329, *192
Gera	327	Gran Sasso	211	Harper	509	Holm	347
Geranion m.	252	Great l.	358	Harrow	99	Holstein	*180
Gerizim m.	420	Great Britian	81	Hartz m.	307, 323	Homburg	326
German o.	58	Great Fish r.	515	Havel r.	307, 311	Hoogly	438
GermanProvinces	291	Great St. Bernard m.		Havre	168	Hoopoe	70
Germany	310, *165	230		Hawk, Sparrow,	69	Horeb m.	426
Gethsemane	418	Grebe	73	Hebrides i.	132, *139	Hottentot Hollands	
Geysers	346, *29	Greece	251, *201	Hebrus r.	267	Kloof	513
Ghauts m.	379, 438	Greenock	136, 137	Heckingen	328	Huddersfield	101
Ghent	339	Greenwich	99	Hecla m.	346, *67	Hue	457
Ghizeh	527	Greitz	327	Heidelberg	319, *166	Human Race, Vari-	
Ghizneh	434	Grenoble	167	Helicon m.	252, *201	eties of	*54
Giant m.	332	Gretna Green	136	Heligoland i.	*145	" Languages of	*56
Gibel	416	Groningen	332	Hellas	*201	" Religions of	*59
Gibraltar	192, *146	Grosbeak	72, 487	Hellenic m.	267	" Governments of	
Giessen	326	Grouse	71	Hellespont	268	*60	
Gihon i.	399	Guadalaviar r.	188	Hellmorass Marsh	295	" Progress of	*60
Gilolo i.	*24	Guadalquivir r.	188	Helmend r.	434	Hull	101, *120
Giraffe	499	Guadarrama m.	188	Helsingfors	362	Humber r.	88, *120
Girgenti	248	Guadiana r.	188, *71	elvellyn	*118	Hungarian Prov.	291.

Hungary	293	Japan ids.	*24	Kestrel	69	Kurile i.	393, 394
Hurricane	35	Japan s.	283	Keswick l.	88	Kurreschaan	527
Husarik	347	Japanese Archipelago		Ketskemet	294	Kursk	322
Hyena Dog	479	383		Keurboom r.	515	Kutaieh	406
Hyderabad 444, 445,		Jaroslav	304, 371	Kew	99	Kuwan r.	399
*238		Jassy	270	Khao i.	396	Kwanlun m.	379
Hydra	252	Java ids.	*24	Khiva	399		
Hyena	480	Javan ids.	*24	Khokand	399	Laaland i.	342
		Jaxartes r.	399	Khoten	458	Laccadives i.	383, 441
Iberian m.	188	Jay	70	Kiakta	395	Lucha m.	406
Ibex	64	Jehoshaphat	418	Kiama	503	Laconia	*293
Ibis	487	Jena	325	Kiang r.	383, 452	Ladoga l.	368, 468
Iceland	345	Jenne	503	Kiangku r.	460	Ladron i.	206, 461
Ictria	301	Jericho	*217	Kidderminster	104	Luguna	537
Ili r.	458	Jersey i. 82, 88,	*117	Kiel	343	La Hogue c.	60, 160
Ilier r.	301	Jerusalem 417,	*216	Kiev	371	Lahore	444
Illyria	301	Jews	215	Kilkeny	152	Lakes	28
Imbros i.	268	Jidda	426	Killkarney l.	148,	Lamalmou m.	520
Ismak i.	396	Jochimsthal	302	*143		Lamago	207
India	437, *236	Johannisberg	326	Killinga	508	Lammergeyer	69, 465
" British	441	Joppa	416	Kilmarnock	136	Lanerk	136
" Danish	445	Jordan r.	413	Kinekulle m.	258	Lancaster	105, *120
" Farther	453	Judaism	50	Kingfisher	73	Lancerota i.	537
" French	445	Juggernaut	443	Kingston upon Hall		Land	22
" Portuguese	445	Julian Alps	290	*120		Landes	*67
Indian o.	23	Jumna r.	438	Kio	471	Land's End	60, 88
Indus r. 383, 438, 451		Jungfrau m.	283	Kioelen m.	350	Lange Kloof m.	513
Inn r. 283, 291, 301		Junkselon i.	383	Kirkwall	136	Langeland i.	342
Innsbruck	302	Jura i.	132	Kite	69	Langenschwalbach	
Inverness	136	Jura m. 60, 158, 282,		Kizil Ismak r.	401	326	
Inverness m.	131	*66		Klausenburg	295	Languages	108, *65
Ionian ids. 249, *146		Jyepore	444	Kniphausen	308	Laperouse str.	363
Ionian s. 211, 268		Jylum r.	438	Knysna r.	515	Lapland	368
Iran	428			Koenigsberg	308	Lark	73
Irawaddy r. 383, 453		Kaarta	508	Koenigstein	322	Larissa	270
Ireland 81, 148, *142		Kaboo	508	Kolosvar	305	Lassa	462
Irkoutsk	395	Kahira	526	Kolyma r.	394	Latitude	21, *21
Irtish r.	393	Kaisarieh	408	Kolyvan	395	Lausanne	266
Ischia i.	246	Kalisch	364	Kong	508	Laybach	301
Iser r.	301	Kalix r.	353	Kong m.	473	Laybach r.	301
Isere r. 159, 231		Kaluga	371	Kongsberg	351	Leamington	104
Islands	22, *23	Kama r.	367	Konieh	408	Lebanon m. 412, *215	
Islay i.	132	Kamschatka	383	Koom	429	Lecce	249
Ismail	371	Kamschatka r.	394	Koondooz	400	Lech r.	301
Isnik	406	Kano	501	Koorauko	508	Leck r.	330
Isanzo r.	301	Karahissar	406	Koords	*320	Leeds	190
Ispahan	429	Karakorum	459	Kordofan	508	Leghorn	240
Italy	210, *199	Karens	*240	Kouka	500	Leicester	169
Italian Provinces	291	Karikal	170	Kowie r.	515	Leige	389
Ithaca	250	Kavalang ids.	396	Kremnitz	294	Leipsic	329
Ivica i.	188	Kazan	372	Kressovice	363	Leiria	308
Ivory Coast 508, 509		Kelat	436	Krishna r.	438	Leith	185
		Kenilworth	104	Kronstadt	295	Leitha r.	238
Jackal	66, 478	Kenne	527	Krzan	363	Leman l.	263
Jackdaw	70	Kenneri	443	Kuban r.	*69	Lemberg	304
Jaffa	416	Kerka r.	295	Kuen-lun m.	379	Lemgow	327
Jakof Proper	508	Kermanshaw	436	Kuma r.	367	Lemnos i.	402
Japan	471, *255	Kesho	457	Kur r.	394		427

Bella r.	238	Longy	*117	Malay Race	47	Mécan r.	452
Beopard	479	Loe Cheo i.	383, 461,	Maldives i.	383, 441	Mecca	424
Lepanto	256	*24		Malines	339	Mecklenburg	324,
Lepanto g.	258	Lorca	191	Malmoe	855	*180	
Lepontine Alps	282,	Loretto	243	Malta i.	211, 249, 250	Mechlenburg Schwe-	
288		Loris	386	*146		rin	324
Lepaina	256	Lough Corrib	148	Man	47, *54	Mecklenburg Strelitz	
Lerwick	136	" Eam	148	Man i.	68, *117	324	
Lesbos i.	402	" Neagh	148	Manasarowara l.	451	Mechlin	838
Lesia r.	283	Louvain	339	Mandara	501	Mecon r.	453
Lesser Fish r.	515	Lubec, Principality		Manchester	100	Medea	489
Leuwarden	332	324		Manchoos, Country		Medina	426
Lewis i.	132	Lubeck	228, *180	of	459	Medinet el Fayoum	
Leyden	332	Lublin	361	Manheim	319	526	
Liakoura m.	252	Lubron	452	Manissa	408	Mediterranean s.	59
Libanus m.	412	Lucca	237, 238	Mansions, English		Medway r.	*120
Liberia	509	Lucerne	286	*126		Meiningen	225
Lichtenstein	227	Lucerne l.	283	Mantchoos	459	Meissen	222
Lille	168	Lucknow	444	Martinea	257	Megalopolis	257
Limerick	151	Ludwigslust	324	Mantua	234	Megarais	256
Limford	242	Lugano l.	283	Manxmen	*117	Melinda	519
Limoges	168	Lula r.	253	Maps	22, *21	Memphis	528
Lincoln	104	Lulea l.	358	Marathon	256	Menai st.	*120
Lindanaas c.	60	Lund	355	Maratime Alps m.	230	Menam r.	452
Lintx	300	Lunenburg	323	Marburg	328	Mendres r.	402
Lion	477, 498	Luxemburg	332,	Mardin	405	Mantone	222
Lions g.	160	*180		Marengo	222	Mentz	228
Lipari i.	211, 246	Luzor	527	Marcotis l.	525	Menalus m.	252
Lippe Principalities	327	Luzerne	*68	Marianne i.	205, 461	Menzalah l.	528
Lippe Detmold	327,	Lyon i.	*24	Marlborough Plains		Mequinez	490
*180		Lycæmus m.	252	*119		Meridian	21
Lippe Schauenburg	327, *180	Lynx	65, 479	Maritza r.	267	Merlin	69
327, *180		Lyons	166	Marmora s.	59, 268,	Meroe	522
Lisbon	207	Macao	462	*64		Mersey r.	89
Lisle	168	Madagascar	535, *23	Marmot	67	Merthyr Tydvil	105
Litchfield	104	Madeira i.	210,	Marce Vassarhely	295	Meshed	480
Livadia	256	537, *23		Marosch r.	295	Messina	242
Liverpool	99, *136	Madras	443	Marquesas	*24	Mesurata c.	474
Loango	508, 510	Madrid	190	Marriages	146	Metals	41, *43
Loeh Doon	132	Maelstrom	350	Marsala	248	Metelino i.	402
" Leven	132	Maese r.	387	Marsch r.	291	Meteora	270
" Katrine	132	Mafra	207	Marseilles	167	Metz	162
" Lomond	132,	Magadoxo	519	Martaban	457	Meuse r.	159, 380,
*139		Magdeburg	309	Marten	65	337, *70	
Lodi	234	Maggiore l.	231, 283,	Martinique i.	170	Miconi i.	252
Loffoden i.	350	*68		Mascot	426	Middleburg	332
Loggun	501	Maghreb	488	Massa	228	Milan	224, 291
Loire r.	61, 159,	Magianism	52	Macedonia	268, *206	Milford Haven	105,
*69		Mahabalipuram	443	Masulipatam	443	*120	
Lolland i.	242	Mahe	170	Matapan c.	66, 253	Military Frontiers	
Lombardo-Venetian		Mahometanism	51	Maulmain	457, *240	291, 295	
Kingdom	283	Maintz	326	Mauritius	535, *24	Millsburg	509
Lomnitz m.	292	Malajorca i.	188	Mayemba	508	Milo i.	252
London	93, *127	Malacca	457	Mayenoe	396	Minadano	*24
Londonderry	152	Malacca str.	383	Mayne r.	311, 320	Mineral Springs	28
Longitude	21, *21	Malaga	195	Mayo i.	537	Minerals	36, 39, *41
Long Pass m.	518	Malar l.	353	Meaco	471	Misero r.	232
				Meander s.	402	Minho r.	206

Minorca i.	188	Mount Hecla	346	Neufchatel	287	Oases	28, 385
Minsk	372	" Mesuradoc.	474	Neufchatel l.	283, #68	Oby r.	382, 203
Miocsen l.	350	" Olan	230	Neuilly	166	Oca m.	188
Miquelon	170	" Rosa	230	Neumarket	295	Ocean, color of	538,
Mirage	36	" Swucku	353	Neusiedler r.	293	" #23, 25	
Mischkolocz	294	" Velino	211	Neustadt	300	" Phosphores-	
Misitras	257	Mountain r.	514	Neva r.	368, #69	cence of	538, #23,
Missolonghi	256	Mountains	25	New Castle	101	25	
Mistra	257	Mozambique	210, 519	New Forest,	*123	Oceans	22, 538
Mitylene i.	383	Muestrich	332	New Georgia	509	Oceanica	#23
Mocha	426	Mull i.	132	New Lattakoo	517	Oder r. 67, 291,	307,
Modena	237, 238	Munich	320	New Strelitz	324	311, #69, 174	
Moen i.	342	Munster	309	New Tcherkask	372	Odessa	371
Mogador	490	Murcia	191	New Zealand i.	*24	Odeypoor	444
Mohilev	372	Muscat	426	Newmarket	103	Cerebro	355
Moldau r.	291	Musk Deer	388	Newry	152	Oka r.	367
Moldavia	269	Musmon	63	Niederselters	326	Okotsk	395
Moluccas i.	980, #24	Mycenæ	257	Nice	282, 406	Okotsk s.	383
Mombasa	519	Mysore	*238	Nicobar i.	383, 457	Old Birnie	500
Monaco	238	Nabulus	*215	Nicopolis	270	Oldenburg	324, #180
Moncago m.	188	Nagpore	444, #238	Niemen r.	61, 307,	Oldham	180
Mondego r.	206	Naksheb	399	364, #69		Old Lattakoo	517
Mondon	257	Namur	339	Nieuweldt's Gebirge		Old World	#62
Mondonedo m.	188	Nancy	168	m. 513		Oleron i.	160
Monembasia	257	Nangasaki	472, #256	Niger r. 474, 496, 508		Olifant r.	514
Mongolia	458	Nanking	462	Nightingale	72	Olives m.	418
Mongolian Race	47	Nantes	167	Nigritia	496	Olmütz	303
Monomotapa	519	Naples	244, 246	Nikolaiev	372	Olympus m.	267, #66
Monrovia	509	Naples b.	246	Niler.	525	Ombrore r.	228
Mons	339	Naplous	420	Nilgherry m.	438	Onega l.	368, #68
Monsoons	34	Napoli g.	253	Nimeguen	332	Onega r.	308
Montauban	168	Narenta r.	295	Nimes	167	Oodipoor	444
Mont Blanc	280	Narew r.	364	Nineveh	406, #207	Oogein	444
Monte Gata m.	188	Nassau	326, #180	Nishni Novogorod		Ooroomiah	*221
" Nuovo	248	Nassau, Duchy of	326	Nizza	232	Oporto	207
Montpellier	167	Nations and States		Noirmoutier i.	160	Oran	469
Montrose	136	of Europe	*78	Noric Alps	290, 311	Orange r.	474
Mont-d'Or m.	158	Nations and States,		Norman ids.	*117	Orel	371
Montserrat m.	188	Origen of	*78	Norrkoping	355	Oresund str.	342
Moon m.	474	Natron l.	525	North Cape	60, 350	Orfa	405
Moor Lands	*118	Nauplia	256	North Downs	*118	Organic Remains	37
Moorzook	488	Navarino	257	Northern,	*37	Orihuela	191
Mooshedabad	442	Navigator's ids.	*24	North Kyn c.	60	Orkney ids.	133,
Mora	501	Naxos i.	253	North s.	58, #64	*139	
Morat	283	Nazareth	418	Norway	349, #191	Ormuz str.	383
Morat l.	282	Naze	60, 350	Norwegian m.	350	Orleans	167
Morava r.	291, 303	Neagh l.	*143	Norwich	101, #137	Oröfar Yokal m.	346
Moravia	291, 303	Nebulae	*17	Nottingham	103	Oroutes r.	413
Moravian mts.	302	Neckar r.	318, 319	Novara	232	Ortlerspitz m.	301
Morea	*202	Negho i.	396	Nova Zembla	60, 368	Osnaburg	323
Morecombe b.	*120	Negropont i.	252	Novogorod	371	Osprey	69
Morocco	490	Nemi l.	240	Nubia	522	Ossa m.	*66
Moscow	370	Neptune, New plan-		Nun c.	474	Ostend	339
Moselle r.	159, 311	et	*9	Nun r.	508	Ostrich	485
Mosul	405	Nerbudda r.	438	Nuremberg	320	Otma i.	396
Motala r.	353	Nestorians	*221	Nuthatch	71	Otter	68
Mount Blanc	283	Netherlands	329	Nyl Ghan	388	Ottoman Empire	
" Corno	211, 244					*205	

Dade	*288	Pergamos	408	Porcupine	68	Re i.	160
Duessant i.	160	Perm	372	Pores i.	253	Recht	429
Durmiah l.	428	Persepolis	430	Port Glasgow	136	Red s.	383
Duse r.	88	Persia	428, *220	Port Mahon	192	Regensburg	321
Duzel	70	Persian g.	383	Port St. Mary	191	Reggio	238, 248
Overflakkee i.	329	Perth	186	Porto Ferrajo	238	Reichenberg	302
Ovideo	192	Perugia	248	Porto Rico	205	Reindeer	64
Owl	69	Perugia l.	240	Portsmouth	102	Religions	50, *59
Ox, Indian	387	Peshawer	434	Portugal	*197	Rennes	168
Oxford	103	Pesth	294	Portuguese India	445	Reus	191
Oxus r.	399	Petchora r.	368, *69	Posen	308	Reuss	327, *180
		Peterhead	136	Potsdam	308	Reutlingen	319
Pacific o.	23	Petra	426	Pozzuoli	248	Reykjavik	346
Padua	236	Petropvlosk	395	Prague	302	Rheims	168
Paisley	136	Pheasant	389	Praya	536	Rhine r.	61, 283, 307, 311, 318, 329, *70, *174
Palermo	248	Philadelphia	420	Pregle r.	307	Rhinoceros	386, 481
Palestine	423	Philæ	527	Presburg	294	Rhoetian Alps	282, 283, 290, 301, 311
Palma	192	Philippine ids.	205, *24	Preston	105	Rhodes i.	402
Palmas c.	474	Philippopoli	270	Prevesa	270	Rhone r.	61, 159, 231, 283, *70
Palos	191	Piacenza	287	Prince's i.	210, 536	Riazan	372
Pampelona	192	Piave r.	233	Procida i.	246	Richmond	99
Panaro r.	233	Pico i.	60	Prussia	307, *186	Riesengebirge m.	311
Panther	386	Piedmont	230, *200	Pruth r.	267, 303	Riga	371
Panuka	445	Pillau	309	Ptolemais	416	Rimini	243
Papal Dominions	240	Pilnitz	322	Puffin	74	Rio d'Infante r.	515
Papua	*24	Pilsen	303	Pulo i.	457	Rio Grande	508
Paris	162	Pindus m.	60, *66	Pultava	372	Riva	302
Parma	237	Pisa	239	Punjab r.	438	Rivers	30, *30
Parthanothean public	249	Pistoia	240	Pyrenees mts.	59, 158, 188, *65	Roca c.	60, 206
Parnassus m.	252, *201	Pitcairn's i.	*24	Pyrgos	257	Rochdale	100
Paros i.	253	Pitea r.	353	Pymont	326	Rochelle	167
Passau	321	Plains	28	Quiloa	519	Rocks,	*40
Patmos i.	402	Planets	18, *7	Quinta de legrimas	207	Rocks, age of	88
Patras	258	Plants	*51	Quorra r.	474, 508	Rodope m.	267
Pausilippo m.	247	Platea	256	Raab r.	293	Roenne	342
Pavia	234	Platten r.	293	Rabatto	251	Roeskilde	344
Paxo i.	249	Platten Zee	298, *68	Rabbit	67	Rome	241, *200
Poyanæ l.	362	Ploen l.	342	Raetrik m.	353	Romney Marsh	*118
Peaceable l.	362	Plover	72, 73	Ragusa	296	Rosetta	526
Peacock	389	Plymouth	102	Railroads	92, 234	Rosetta r.	525
Peak m.	*119	" Sound	*120	Rajpoots	*238	Rostock	324
Pearl Oyster	390	Po r.	211, 231, 233, *71	Rains	*34	Rotterdam	332
Pegu	454	Poestum	248	Rambouillet	166	Rouen	167
Pekin	461	Poland	364	Ramsey	*117	Roveredo	302
Pelew ids.	*24	Polar Circle	21	Rangoon	454, *241	Rovigno	301
Pelica r.	364	Polar Zones	*34	Rastadt	319	Rudesheim	326
Pelion m.	*66	Pole-cat	65	Rat	68	Rudolstadt	327
Peneus r.	268	Polish Provinces	291	Ratel	484	Rugen g.	307
Peninsulas of rope	*64	Polynesia	*24	Ratisbon	321	Rugen l.	307
Pennine Alps	280, 282	Pondicherry	170, 445	Ratzburg l.	342	Rundison l.	350
Pentland Frith	133, *139	Pongo	442	Raven	69	Russian Empire	*156
Pentland Hills	131	Ponta Delgada	60	Ravenna	243	Russia Asiatic	393
Pepper Coast	506	Poole's Hole	*119	Rawan Hrad l.	451	Russia in Europe	367
		Poonah	443	Raz c.	160		
		Popedom	200				
		Poprad r.	293				

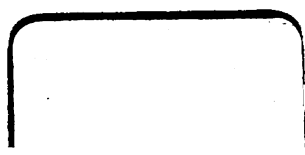
Rustshuk	270	Saratov	372	Sea, Phosphorescent	Sierra de Guadalupe
Saale r.	307, 311	Sardinia	230	538, *25	188, 206
Saarda m.	332	Sardinia i.	60, 211, 231	Sea, Saltness of	Sierra Leone
Saarlouis	309	Sarem	508	34, *12	508
Sabeism	50	Sari	429	Seasons	Sierra Morena m.
Sable	65	Sark i.	82, 88, *117	Seghalien i.	188
Saghalien i.	459	Sassari	232	Segistan	Sierra Nevada m.
Saghalien r.	458	Satellites	18	Sego	*65
Sagrab	294	Save r.	291, 293, 301, *174	Seidnitz	Sigmaringen
Sahara	494	Savona	232	Seiks	208
Saigaing	454	Saxe Altenburg	325, *180	Seine r.	Sihon r.
Soigon	457	Saxe Coburg	325, *180	169, *69	209
Saimer l.	862	Saxe Meiningen	325, *180	Selimnia	Silesia
Saint Cloud	166	Saxe Weimar	324, *180	203	203
Sakaria r.	402	Saxon Duchies	324, *180	Selucia	Silistria
Salamanca	192	Saxons	*165	Semendria	270
Salamis l.	253	Saxony	321, *180	Senegal	25
Salerno	248	Sayerian m.	393	Senegal r.	Sinai m.
Salerno b.	246	Scagerac	58	474, 507	426
Salisbury	102	Seagstlostind m.	350	Senegambia	Sincapore
Salisbury Plain	*118	Sealanova	408	Sennaar	487
119		Scanderoon	416	Serampore	Sincapore str.
Sallee	490	Scandinavian m.	60	442, 445	233
Salona	256	Scandinavian Penin-		Seres	Sind r.
Salonica	270	sula	*191	Sereth r.	428
Salonica g.	268	Scawfell m.	*118	Seringapatam	Sinde
Saloom	508	Schaumburg Lippec		Seringham i.	445
Saltzburg	300	Scheldt r.	159, 330, 387, *70	443	Sindia
Saluen r.	453	Schelling i.	329	Seriphas i.	444
Samarcand	399	Schemnitz	294	Servia	Sinecures
Samaritans	*215	Schiedam	832	296	81
Samen m.	520	Schleitz	327	270	Singan
Samos i.	388, 402	Schleisheim	320	508	462
Samothracei	266, 402	Schneeberg m.	320	207	Sinigaglia
Samsos i.	242	Schokland i.	329	250	242
Samson's Ribe	135	Schowen i.	329	Seveberget m.	Siont
Samya i.	396	Schwartzburg	327	88, *118, *120	208
Sandowa	*244	Schwartzwald m.	319	Serville	Sir r.
Sana	426	Schwerin	324	190	209
San Fernando	191	Scicilies, Two	201	166	Sirocco
San Marino	244	Scilly ids.	88	Seychelles ids.	85, 241
Sandpiper	73	Scio i.	402	Shannon r.	270
Sangar str.	383	Selavonia	294	148, *142	Skagen c.
Sangarius r.	402	Scopelos i.	253	498	60
Sanpoo r.	451	Scotland	181, *137	101	Skaptar Yokul
Santa Cruz	537	Scutari	270, 406	592	346
Santa Maura	249	Sea	24	522	Skaw c.
Santander	193	Seas of Europe	*63	480	60
Santarem	207	Sea, color of	538, *25	842	Skiddaw m.
Santiago	192	Sea, Phosphorescent		456	*118
Santillana m.	188	Sierra de Asturias m.		520	Skye i.
Santorini i.	253	Sierra de Cintas	206	526	132
Saone r.	159	Sidon	416	104	Slave Coast
Sarabat r.	402	Sienna	240	69	508, 509
Saragossa	192	Sierra of Asturias m.		270	Sleswick
Sarasu r.	399	Sicily i.	60, 211, 245, *201	480	843
		Sicilian s.	211	522	843
		Sicily i.	60, 211, 245, *201	480	843
		Sidon	416	522	843
		Sienna	240	480	843
		Sierra of Asturias m.		842	843
		Sierra de Cintas	206	456	843
		Sigon	462	520	843
		Silistria	270	526	843
		Sinecures	81	104	843
		Singan	462	69	843
		Sinigaglia	242	270	843
		Siont	208	480	843
		Siphrnos i.	208	522	843
		Sir r.	209	480	843
		Sirocco	85, 241	520	843
		Sistova	270	526	843
		Skagen c.	60	104	843
		Skaptar Yokul	346	69	843
		Skaw c.	60	270	843
		Skiddaw m.	*118	480	843
		Skye i.	132	522	843
		Slave Coast	508, 509	480	843
		Sleswick	843	520	843
		Sligo	166	526	843
		Slough	99	104	843
		Smalkalden	826	69	843
		Smedreno	270	270	843
		Smolensk	371	480	843
		Smyna	406, *206	522	843
		Snowdon mts.	88	480	843
		Snowy mts.	513	520	843
		Society ids.	*24	526	843
		Soccatoo	501	104	843
		Socotra	525, *24	69	843
		Sodar	*117	270	843
		Sogdiana	400	480	843
		Solar System	18	522	843
		Solano	35	480	843
		Solebog b.	*120	842	843
		Solent b.	*120	456	843
		Soliman m.	434	520	843
		Sommer.	159	526	843
		Sondershausen	327	104	843
		Sophia	270	69	843
		Souchou	462	270	843
		Sougar str.	383	480	843
		Soulisk	67	522	843
		Sounds	24	480	843
		South Downs	*118	842	843

Southampton Water	Stirling	136	Tarim r.	458	Tiger	385, 440
b. 120	Stock	65	Tarsus	408	Tiger Cat	479
South Uist i.	Stockholm	355	Tartary, Channel of	883	Tigre	520
Spain 187, *196	Stockport	100	Tartary, Chinese	458	Tigris r.	401
Spalatro	Stoke upon Trent	104	" Independent	398	Tilsit	309
Sparta	Stonehenge	*125	Tassisudon	445	Timbuctoo	502
Spartel c.	Stour b.	*120	Taunton	*118	Tino i.	259
Spartavento	Stork	78	Taurida m.	367	Tisza r.	293
Spessart m.	Straits	24	Tauris	429	Tobolsk	395
Spey	Stralsund	308	Taurus m.	379, 401	Tocat	406
Spezia	Strasbourg	168	Tavoy	457	Toeplitz	303
Spithead b.	Strata	36	Tay r.	132, *189	Toledo m.	188
Spire	Stromboli i.	246	Taygetus m.	252	Tomsk	396
Sphakia	Stroud	108	Tchad l.	497	Tornea l.	358
Sphakiots	Stuttgart	319	Teembo	506	Tornea r.	353, 358
Spithead	Suakim	522	Teen-shan m.	379	Torre del Greco	248
Spitzbergen 60, 368	Sudan	496	Tees b.	*120	Tortosa	191
Spoletto	Sudetic m.	290, 308, 807	Teeshoo Loomboo	452	Toulon	167
Spree r.	Suevians	*165	Tegaea	257	Toulouse	168
Springer	Suez	526	Teheran	429	Tournay	339
Springs 29, *28	Sali	270	Temeswar	294	Tower of London	*126
Squirrels	Saliterna m.	353	Tempe	268	Tours	167
Staffa i.	Salphuz m.	346	Temperate Zones	*33	Trade Winds	34
St. Andrew's	Sunderland	101	Tenasserine	457	Træzene	257
" Aubin	Superstitions	146	Tenedos i.	402	Tranquebar	445
" Brides b.	Surat	443	Teneriffe i.	537	Trani	248
" Cloud	Sutlege r.	436, 451	Terceira i.	60	Transylvania	294
" Dennis	Swabian Alps	319	Terek r.	367	Trapani	248
" Etienne	Swallow	73	Tergovist	270	Trebbia r.	233
" Gall	Swansea	103	Ternate i.	*24	Trebisond	408
" George's Chan.	Sweden	353, *191	Tessino r.	283	Tremecen	489
81, *64	Switzerland	282, *198	Tewksbury	103	Trent	302
St. Germain en laye	Swinemunde	308	Texel	332	Trent r.	88, *120
166	Swuckey m.	358	Texel i.	329	Treves	309
St. Helena i.	Syene	526, 537	Thames r.	88, *120	Trichinopoly	443
" Hilier 82, *117	Syra	258	Thasos i.	268	Trieste	301
" Iago i.	Syra i.	253	Theaki	250	Trikali m.	252
" Ildefonso	Syracuse	246	Thebes	256	Trincomalee	441
" Jago	Syria	412, *211	Theiss r.	291, 298	Tripoli	416, 488
" Kilda i.	Szegedin	294	Therriesienstadt	294	Tripolitza	257
" Malo g.	Taarings i.	342	Thian-Chan m.	379	Trochtelfingen	328
" Martin's i.	Tabaria	420	Thibet	451	Tronyem	251
" Mary i.	Table m.	514	Thirlmere l.	*119	Tropical Zones	*82
" Matthew i.	Tabor m.	412, 418	Thorn	309	Tropics	21
" Michael's i.	Tacabiz	439	Thrush	70	Troppan	303
" Petersburg	Tacazze r.	520	Thun l.	288	Troyes	168
" Pierre 170, *117	Tagus r.	188, 206, *71	Thuringians	*165	Tuam	152
" Ubes	Tajo r.	188	Thuringerwald m.	311	Tubingen	319
" Vincent c. 60, 206	Tana r.	358	Tiber r.	238, 240	Tula	371
Stanovoy m.	Tanaro r.	281, 283	Tiberias	420	Tunis	489
293	Tangier	490	Tiberias l.	413	Turcomania	400
States of the Church	Taragona	291	Ticino r.	233	Turfan	458
240	Taranto g.	246	Tides	24, *24	Turin	231
Stavanger	Tarentum	248	Tidore i.	*24	Turkey	267, 401
351	Tariff, British	97	Ti'o	395	Turkistan	398
Steppes					Turks	*205
Stettin					Tuscan s.	211
308						
Stettin Haff						
307						
Steyer						
300						
St. a						
800						

Tuscany	238, *200	Vaulcuse	167	Wawa	503	Woxa r.	262
Tver	371	Vecht r.	380	Weald	*118	Wrath c.	60
Twced r.	132, *139	Vegetation	42	Weasel	65	Wurtzburg	321
Twickenham	99	Venice	234, *181,	Weaver Bird	487	Wyborg l.	342
Two Sicilies	244	*182		Weimer	324	Wyer.	*120
Tynemouth	101	Venice g.	211	Welsh m.	87		
Tyne b.	*120	Vercelli	232	Wener l.	353, *68	Xanten	309
Typhoons	*32	Verd c.	474	Wesel	309	Xucar r.	188
Tyre	416	Verona	236	Weser r.	311, 323,		
Tyrinthus	257	Versailles	166	*69, *164		Yak	387
Tyrol	301, *182	Vesuvius m.	244, *65	Westminster	*12	Yakoutsk	395
		Vicenza	236	Western Ghauts m.		Yanaon	170
Ulm	319	Vienna	299	438		Yanina	270
Ulswater l.	88, *119	Vincennes	166	Western Islands	132,	Yarkand	458
35		Vendho m.	188	*139		Yarkand r.	458
Umea r.	353	Virgin m.	288	Wetter l.	353, *68	Yarmouth	101
Umerapoora	453,	Vistula r.	61, 291,	Wexford	152	" Roads	*120
*244		303, 307, 364, 368,		Whidah	508	Yedo	471
Undercliff	*119	*69		Whidah Bird	487	Yeh	457
Union c.	134	Viziapoor	444	Whimbrel	74	Yemissey r.	383, 393
Upsala	855	Vlieland i.	329	Whirlpool	25	Yeou r.	498
Ural mts.	367, 379,	Volcano	26	Whirlwind	35	Yezd	430
393		Volga r.	61, 367, *68	White r.	522	York	104, *118
Ural r.	367, 394	Volo g.	253	White s.	58, 368, *64	Youriba	503
Uralsk	372	Vologda	372	Whitehaven	105	Ypres	339
Urbino	243	Volturmo r.	245	Widgeon	75	Yssel r.	330
Urbia m.	188	Voronege	372	Widin	270	Yuthia	456
Ushant	160	Vosges m.	60, 158	Wight i.	88, *119	Yverdun	286
Utrecht	332	Vrachori	256	Wild Boar	482		
		Vultures	485, 486	Wilna	372	Zacynthus	250
Vaage	352			Winandermere l.	88	Zaire r.	474, 508
Vag r.	293	Waag r.	293	Winchester	102	Zambeze r.	474
Vale of York	*118	Waal r.	330	Wind	34, *84	Zanguebar	519
" " the Severn		Waarhuus	351	Winyats	*119	Zante i.	250
*118		Wagel	74	Windsor	99, *123	Zara	296
Vale of Exeter	*118	Wakefield	101	Wirtemberg	319,	Zea i.	253
" " Taunton	*118	Walcheren i.	329	*180		Zealand i.	342
Valencia	191	Waldeck	326, *180	Wisbaden	326	Zebra	480
Valentia	152	Wales	118, *117	Wisby	355	Zeila	520
Valetta	250	Wallachia	269	Wismar	324	Zeria m.	252
Valladolid	192	Wallo	508	Witepsk	372	Zermagnia r.	295
Valleys	28, 88, 159,	Walrus	68	Wolf	66	Zirknitz l.	301
188		Warsaw	364	Wolfenbuttcl	325	Zodiac	19
Van	406	Wartburg	325	Wolverene	65	Zones	22, 34, *81
Van l.	402	Wartha r.	311	Wolverhampton	100	Zurich	286
Van Diemen's Land		Warwick	104	Woodpecker	70	Zurich l.	283
*24		Wash b.	88, *120	Woody m.	302	Zuydar Zee b.	339
Var r.	231	Waterford	151	Woolwich	99	Zwartc Berg m.	513
Vardar r.	268	Waterloo	339	Worcester	104	Zwart-kops r.	515
Varna	270	Waterspout	35	Worms	326	Zwei-Brucken	327

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